DENR USE ONLY: ☐ Paper Report ☐ Electronic Data - Email CD (data loaded: Yes / No) Doc/Event #:

NC DENR
Division of Waste Management - Solid Waste

Environmental Monitoring Reporting Form

Notice: This form and any information attached to it are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

Instructions:

- **Prepare one form for each individually monitored unit.**
- **Please type or print legibly.**
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i).
- In accordance with NC General Statutes Chapter 89C and 89E and NC Solid Waste Management Rules 15A NCAC 13B, be sure to affix a seal to the bottom of this page, when applicable.
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

Solid Waste Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

Richardson Smith Gardner and Associates, Inc.

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Joan Smyth, P.G. Phone: 919-828-0577 x122

E-mail: joan@rsgengineers.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Davidson County Phase 2 Landfill	1242 Old Highway 29 Thomasville, NC 27360	29-06	.1600	August 26, 2008 October 29, 2008 February 23, 2009 April 9, 2009

Environmental Status: (Check all that apply)

☒ Initial/Background Monitoring ☐ Detection Monitoring ☐ Assessment Monitoring ☐ Corrective Action

Type of data submitted: (Check all that apply)

☒ Groundwater monitoring data from monitoring wells
☐ Groundwater monitoring data from private water supply wells
☐ Leachate monitoring data
☐ Surface water monitoring data
☐ Methane gas monitoring data
☐ Corrective action data (specify) _____
☐ Other(specify)

Notification attached?

☒ No. No groundwater or surface water standards were exceeded.
☐ Yes, a notification of values exceeding a groundwater or surface water standard is attached. It includes a list of groundwater and surface water monitoring points, dates, analytical values, NC 2L groundwater standard, NC 2B surface water standard or NC Solid Waste GWPS and preliminary analysis of the cause and significance of any concentration.
☐ Yes, a notification of values exceeding an explosive methane gas limit is attached. It includes the methane monitoring points, dates, sample values and explosive methane gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards. I am aware that there are significant penalties for making any false statement, representation, or certification including the possibility of a fine and imprisonment.

Joan Smyth, P.G.	Senior Hydrogeologist	919-828-0577 x 122
Facility Representative Name (Print)	Title	(Area Code) Telephone Number

Joan A. Smyth 7/1/09
Signature Date

Affix NC Licensed Professional Geologist/Engineer Seal here:

NORTH CAROLINA LICENSED SEAL 1369 GEOLOGIST JOAN A. SMYTH

Revised 01/2007

Ground Water Monitoring Report

Baseline Monitoring Report

Davidson County
MSW Phase 2 – Area 1 Landfill
Lexington, North Carolina
NC Solid Waste Permit # 29-06

Prepared for:

Davidson County Integrated Solid Waste
1242 Old Highway 29
Thomasville, NC 27360-0024

June 2009

RICHARDSON SMITH GARDNER
& ASSOCIATES
ENGINEERING & GEOLOGICAL
SERVICES

Ground Water Monitoring Report
Davidson County Phase 2 - Area 1 Landfill
Baseline Monitoring Report

Prepared for:

Davidson County Integrated Solid Waste
1242 Old Highway 29
Thomasville, NC 27360

RSG Project No. **DAVDCO 08-3**

Joan A. Smyth, P.G.
Senior Hydrogeologist

NORTH CAROLINA LICENSED SEAL 1369 GEOLOGIST JOAN A. SMYTH

June 2009

RICHARDSON SMITH GARDNER & ASSOCIATES
ENGINEERING & GEOLOGICAL SERVICES

PRINTED ON 100% RECYCLED PAPER

Davidson County MSW Phase 2 Landfill

Baseline Monitoring Report

1.0 INTRODUCTION 1

2.0 SITE GEOLOGY 1

3.0 DAVIDSON COUNTY PHASE 2 MSW LANDFILL 1
3.1 Sampling Procedures 1
3.2 Field and Laboratory Results 2

4.0 SITE GROUND WATER CHARACTERIZATION 3

5.0 CONCLUSIONS 3

FIGURES

Figure 1 – Davidson County Landfill Site Potentiometric Map

TABLES

Table 1 – Ground Water Elevations & Velocities
Table 2 – Field Parameters
Table 3 – Detected Constituents
Table 4 – Aquifer Conductivity and Velocity Table

APPENDICES

Appendix A – Monitoring Well Boring Logs
Appendix B – Field Data Sheets
Appendix C – Laboratory Analytical Report
Appendix D – Aquifer Slug Test Data and Analysis

1.0 Introduction

Richardson Smith Gardner & Associates (RSG) personnel performed four (4) groundwater monitoring events from August 2008 to April 2009 at the Davidson County Phase 2 – Area 1 lined Subtitle D Landfill. This baseline monitoring report represents the results of four (4) monitoring events dated August 26th 2008, October 29th 2008, February 23rd 2009 and April 9th 2009. These sampling events satisfy the requirements of the monitoring programs for this site, 15A NCAC 13B.1600. The following report summarizes the monitoring events, sampling procedures, field and laboratory results, and ground water characterization as required by NC Solid Waste Regulations. Also included are summary tables of ground water measurements, field parameters, detected constituents and the laboratory analytical report.

2.0 Site Geology

The Davidson County Landfill facility is located in the Piedmont Physiographic Province of North Carolina. More specifically, the Geologic Map of North Carolina (1985) indicates that the site lies within, but at the western margin of, the Carolina Slate Belt. This belt includes predominantly volcanic and sedimentary rocks of Late Proterozoic to Cambrian age that have been metamorphosed and intruded by numerous igneous plutons. The boundary zone between the Carolina Slate Belt and the adjacent Charlotte Belt is known as the Gold Hill/Silver Hill shear zone. The most detailed mapping of the area was published by the US Geological Survey in the Geologic Map of Charlotte by Goldsmith, Milton and Horton (1988). This mapping indicates that the site vicinity is underlain by two stratigraphic units: metavolcanic rocks, and metamorphosed granodiorite.

The metavolcanic rocks include mafic, intermediate and felsic volcanic rocks, rocks from the Flat Swamp Member of the Cid Formation, and metavolcanic rocks of the Battleground Formation. The Battleground Formation is characterized as a quartz-sericite schist and phyllite. It contains subordinate beds of quartz-pebble conglomerate, quartzite, kyanite or sillmanite quartzite and manganiferous schist. The metamorphosed granodiorite occurs in the central portion of the proposed Phase 2 area. This unit is locally porphyritic.

3.0 Davidson County Phase 2 MSW Landfill

3.1 Sampling Procedures

Groundwater sampling was performed at 12 wells (MW-1, MW-2, MW-3S, MW-3D, MW-4S, MW-4D, MW-5, MW-6S, MW-6D, MW-7, MW-8 & MW-9) shown on **Figure 1**. Boring logs for these wells are included in **Appendix A**. Sampling procedures followed the protocols set forth in the site's Water Quality Monitoring Plan[1]. Each well was gauged to determine ground water depth and then purged of a minimum of three well volumes or until dry. The wells were purged and allowed to stabilize prior to sample collection. Ground water purging and sample collections were performed using a factory sealed Teflon™ bailer. Out of 12 wells, MW-7 was not sampled during

1 Davidson County Landfill Water Quality Monitoring Plan, Richardson Smith Gardner & Associates, February 2007.

any of the four events because of insufficient water. During the sampling process, each well was inspected for signs of damage or unusual conditions. None were noted with the exception of a few well locks that were replaced.

A field measurement of temperature, pH, and conductivity was taken at each well and surface water sampling location. Field data sheets are included in **Appendix B**. Field data sheets for the February and April 2009 events are included in **Appendix B**. No field data sheets for the August and October events are available. Samples were collected in laboratory containers provided by Environment 1, Inc. (NC Laboratory Certification # 10). Upon collection, the samples were sealed, placed on ice, and transported to the laboratory. Field blanks were also collected for quality control purposes.

3.2 Field and Laboratory Results

All samples were transported to the laboratory facility under proper chain of custody analyzed at the specified DWM Practical Quantitation Limits for Appendix I constituents[2]. The laboratory analysis is included in **Appendix C**.

Groundwater and field measurements are included as **Tables 1 and 2,** respectively. The laboratory analysis detected eleven (11) inorganic constituents (barium, beryllium, cadmium, cobalt, copper, total chromium, lead, nickel, thallium, vanadium and zinc) in ten (10) wells (MW-1, MW-2, MW-3S, MW-3D, MW-4S, MW-5, MW-6S, MW-6D, MW-8 & MW-9). Of these, eight (8) inorganic constituents were detected above their 15A NCAC 2L.0200 (2L) / Groundwater Protection (GWP) standards:

- beryllium (MW-9 in October 2008 event);
- cadmium (MW-9 in April 2009 event);
- cobalt (MW-6S & MW-9 in August 2008, October 2008 and February 2009 events);
- chromium (MS-1, MW-6S, MW-6D & MW-9 in all four events)
- lead (MW-6S and MW-9) in August 2008, October 2008 and February 2009 events);
- nickel (MW-6S in October 2008 and February 2009 events);
- thallium (MW-1 in February 2009 event); and
- vanadium (MW-1, MW-2, MW-3S, MW-4S, MW-5, MW-6S, MW-6D & MW-9 in all four events)

It should be noted that turbidity levels in several wells during several events were found to be elevated. These levels are indicative of suspended solids in the samples which can elevate inorganic constituent results.

Laboratory analysis of groundwater indicated no detectable levels of organic constituents in any of the wells. The laboratory results are summarized in **Table 3**, and are included in **Appendix C**.

2 New guidelines for electronic submittal of environmental monitoring data memo, NCDENR DWM, Solid Waste Section, October 27, 2006.

4.0 Site Ground Water Characterization

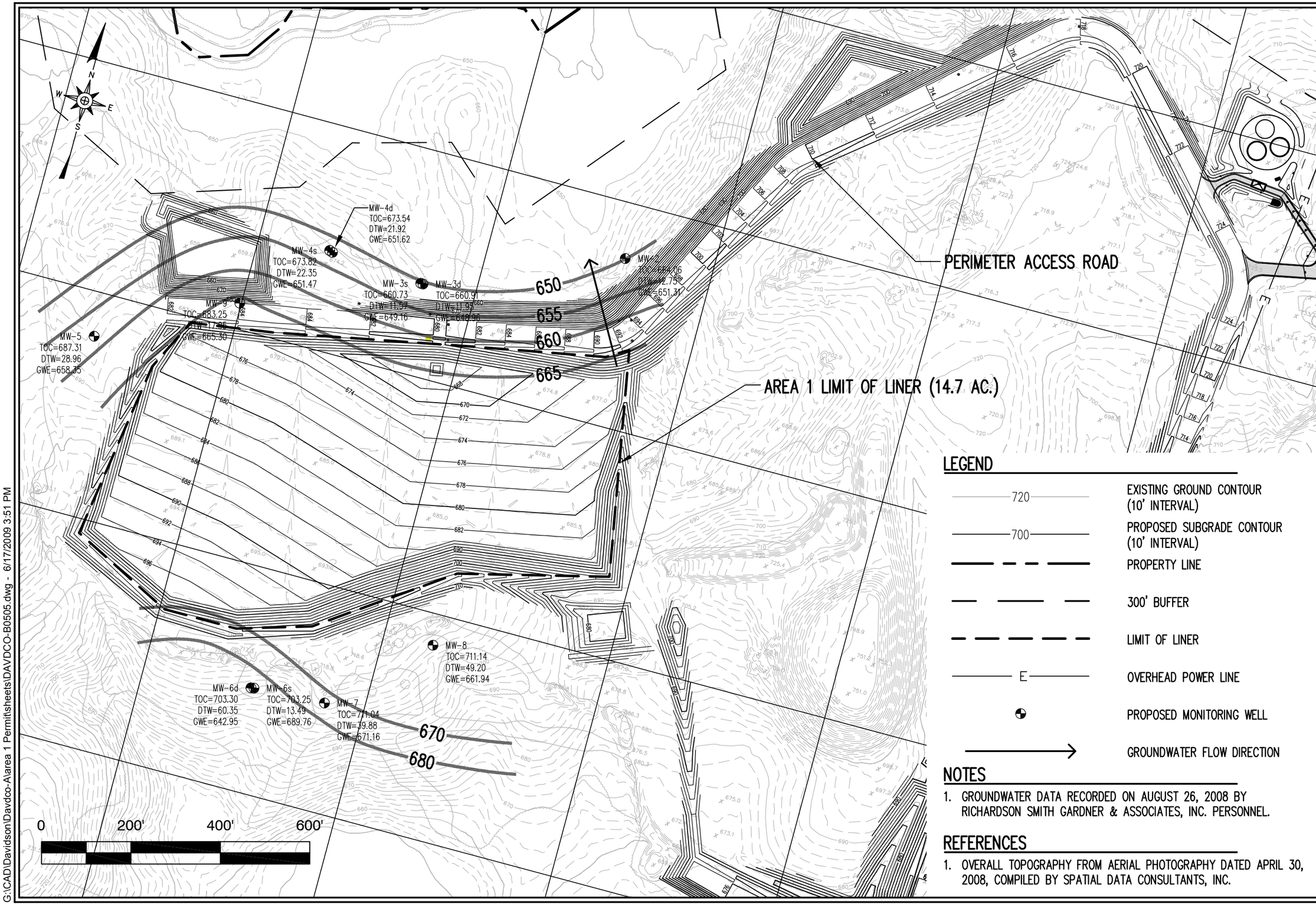
A potentiometric surface map was prepared for two monitoring events; April 2009 (most recent groundwater level elevations) and August 2008 (highest ground water level elevations among four events). The data indicates that ground water underneath the Phase 2 Area 1 unit is flowing generally to the north and northeast towards Rich Fork Creek. This is consistent with ground water flow patterns previously seen at this site. The potentiometric surface map (**Figure 1**) is also attached for your review.

In June 2009, RSG Personnel performed aquifer slug testing on the groundwater monitoring wells associated with the Phase 2, Area 1 unit. Aquifer slug tests indicated conductivities ranging from 0.001 ft/day to 7.63 ft/day in the unconsolidated aquifer. The conductivities are summarized in **Table 4**. The slug test data and analysis are included in **Appendix D**. Aquifer velocities were calculated using this data, as well as generalized effective porosities based upon soil types outlined in the boring logs and potentiometric data. These are also summarized in **Table 4**.

5.0 Conclusions

The results presented from the groundwater monitoring wells associated with the Phase 2 Area 1 landfill indicate detections above the 2L groundwater standard of certain inorganic constituents. This is likely due to suspended solids in the samples and is not indicative of impact from the landfill. The data contained in this report will be used as the statistical baseline for the Phase 2 Area 1 landfill unit. The next ground water monitoring event will be completed in October 2009. After completion of this fall event, statistical analysis will be performed. The results of this event will be reported to NCDENR upon completion of statistical analysis of laboratory data.

Figures



LEGEND

720	EXISTING GROUND CONTOUR (10' INTERVAL)
700	PROPOSED SUBGRADE CONTOUR (10' INTERVAL)
	PROPERTY LINE
	300' BUFFER
	LIMIT OF LINER
E	OVERHEAD POWER LINE
	PROPOSED MONITORING WELL
	GROUNDWATER FLOW DIRECTION

NOTES

1. GROUNDWATER DATA RECORDED ON AUGUST 26, 2008 BY RICHARDSON SMITH GARDNER & ASSOCIATES, INC. PERSONNEL.

REFERENCES

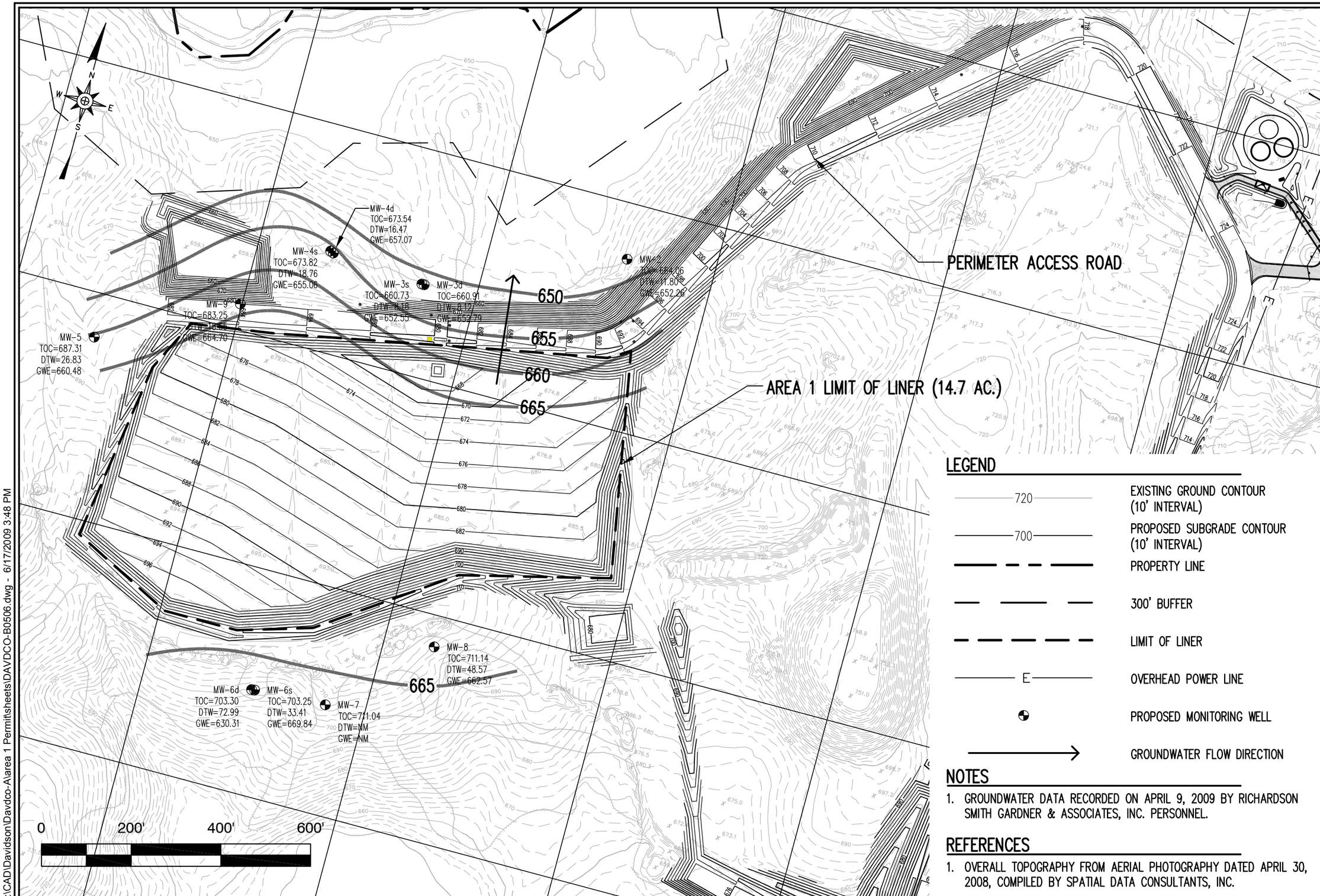
1. OVERALL TOPOGRAPHY FROM AERIAL PHOTOGRAPHY DATED APRIL 30, 2008, COMPILED BY SPATIAL DATA CONSULTANTS, INC.

RICHARDSON SMITH GARDNER & ASSOCIATES
NC LIC. NO. C-0683 (Engineering)
14 N. Boylan Ave.
Raleigh, N.C. 27603
ph: 919-828-0577
fax: 919-828-3899
www.rsgengineers.com

FIGURE NO.	1
FILE NAME	DAVDCO-B0505
SCALE:	AS SHOWN
CHECKED BY:	
PROJECT NO.	DAVDCO-A
DRAWN BY:	J.A.L.
DATE:	Jun. 2009

TITLE:
POTENTIOMETRIC SURFACE MAP
DAVIDSON COUNTY MSW
PHASE 2 LANDFILL
BASELINE MONITORING REPORT

G:\CAD\Davidson\Davdco-Alarea 1 Permitsheets\DAVDCO-B0505.dwg - 6/17/2009 3:51 PM



LEGEND

720	EXISTING GROUND CONTOUR (10' INTERVAL)
700	PROPOSED SUBGRADE CONTOUR (10' INTERVAL)
	PROPERTY LINE
	300' BUFFER
	LIMIT OF LINER
E	OVERHEAD POWER LINE
	PROPOSED MONITORING WELL
	GROUNDWATER FLOW DIRECTION

NOTES

1. GROUNDWATER DATA RECORDED ON APRIL 9, 2009 BY RICHARDSON SMITH GARDNER & ASSOCIATES, INC. PERSONNEL.

REFERENCES

1. OVERALL TOPOGRAPHY FROM AERIAL PHOTOGRAPHY DATED APRIL 30, 2008, COMPILED BY SPATIAL DATA CONSULTANTS, INC.

RICHARDSON SMITH GARDNER & ASSOCIATES
NC LIC. NO. C-0683 (Engineering)
14 N. Boylan Ave.
Raleigh, N.C. 27603
ph: 919-828-0577
fax: 919-828-3899
www.rsgengineers.com

FIGURE NO.	1
FILE NAME	DAVDCO-B0506
SCALE:	AS SHOWN
CHECKED BY:	
PROJECT NO.	DAVDCO-A
DRAWN BY:	J.A.L.
DATE:	Jun. 2009

TITLE:
POTENTIOMETRIC SURFACE MAP
DAVIDSON COUNTY MSW
PHASE 2 LANDFILL
BASELINE MONITORING REPORT

G:\CAD\Davidson\Davdco-Alarea 1 Permitsheets\DAVDCO-B0506.dwg - 6/17/2009 3:48 PM

Tables

RICHARDSON SMITH GARDNER & ASSOCIATES
ENGINEERING & GEOLOGICAL SERVICES

Table 1
Ground Water Elevations
Davidson County Phase 2 Landfill

Well	Northing	Easting	TOC Elevation (feet)	8/26/2008		10/9/2008		2/23-24/2009		4/9/2009	
				Water Level (feet)	GW Elev (feet)	Water Level (feet)	GW Elev (feet)	Water Level (feet)	GW Elev (feet)	Water Level (feet)	GW Elev (feet)
MW-1	767416.7610	1651389.0830	734.16	12.61	721.55	21.68	712.48	20.51	713.65	nm	nm
MW-2	766376.8072	1649303.3872	664.06	12.75	651.31	12.16	651.90	12.20	651.86	11.80	652.26
MW-3S	766204.9705	1648875.8572	660.73	11.57	649.16	9.29	651.44	8.72	652.01	8.18	652.55
MW-3D	766204.6283	1648881.1437	660.91	11.95	648.96	9.05	651.86	8.96	651.95	8.12	652.79
MW-4S	766223.2813	1648660.2736	673.82	22.35	651.47	21.26	652.56	20.30	653.52	18.76	655.06
MW-4D	766220.6778	1648667.3780	673.54	21.92	651.62	20.86	652.68	19.95	653.59	16.47	657.07
MW-5	765901.6002	1648200.9255	687.31	28.96	658.35	28.59	658.72	28.16	659.15	26.83	660.48
MW-6S	765234.1084	1648749.7961	703.25	13.49	689.76	33.73	669.52	34.22	669.03	33.41	669.84
MW-6D	765233.1390	1648743.0790	703.30	60.35	642.95	72.44	630.86	71.95	631.35	72.99	630.31
MW-7	765242.8464	1648910.6331	711.04	39.88	671.16	39.78	671.26	nm	nm	nm	nm
MW-8	765430.5188	1649111.6524	711.14	49.2	661.94	49.5	661.64	49.55	661.59	48.57	662.57
MW-9	766057.5112	1648496.3934	683.25	17.95	665.30	nm	nm	18.70	664.55	18.55	664.70

Notes: Velocity Calculated from V=K*I/n where:
V = velocity
K = Hydraulic Conductivity
I = Gradient
n = Porosity
Hydraulic Conductivity data from slug tests performed in 1994
Porosity values assumed from Groundwater & Wells (Driscoll)
Survey Data collected by Surveying Solutions, P.C.
nm - Not Measured

RICHARDSON SMITH GARDNER & ASSOCIATES
ENGINEERING & GEOLOGICAL SERVICES

Table 2
Field Parameters
Davidson County Phase 2 Landfill

Well	Date	pH (Std. Units)	Conductivity (umhos)	Temp. (celsius)	Turbidity (NTU)
MW-1	8/26/2008	NM	NM	NM	NM
	10/9/2008	NM	NM	NM	NM
	2/23-24/2009	6.6	570.0	14	1000
	4/9/2009	6.9	300.0	14	>1000
MW-2	8/26/2008	7.1	250.0	16	67.5
	10/9/2008	8.1	220.0	17	>1000
	2/23-24/2009	7.3	170.0	12	1000
	4/9/2009	7.7	150.0	12	>1000
MW-3S	8/26/2008	6.9	230.0	17.0	NM
	10/9/2008	7.4	320.0	17.0	216
	2/23-24/2009	7.4	110.0	12.0	25.9
	4/9/2009	7.9	200.0	11.0	50.5
MW-3D	8/26/2008	6.9	420.0	15	9.29
	10/9/2008	7.9	360.0	17	324
	2/23-24/2009	7.5	280.0	13	17.8
	4/9/2009	7.4	250.0	13	11.2
MW-4S	8/26/2008	7.0	250.0	16	256
	10/9/2008	6.8	110.0	16	410
	2/23-24/2009	7.4	190.0	13	>1000
	4/9/2009	7.1	160.0	14	>1000
MW-4D	8/26/2008	7.0	270.0	16	9.68
	10/9/2008	7.2	27.1	17	62
	2/23-24/2009	7.8	260.0	14	209
	4/9/2009	7.1	220.0	14	57.6
MW-5	8/26/2008	6.2	510.0	16	34.1
	10/9/2008	6.4	100.0	15	487
	2/23-24/2009	6.6	100.0	13	168
	4/9/2009	7.2	110.0	14.5	69.5
MW-6S	8/26/2008	7.0	320.0	16	NM
	10/9/2008	6.6	510.0	15	>1000
	2/23-24/2009	8.1	600.0	14	>1000
	4/9/2009	8.1	600.0	14	>1000
MW-6D	8/26/2008	7.5	700.0	16	>1000
	10/9/2008	NM	NM	NM	NM
	2/23-24/2009	NM	NM	NM	NM
	4/9/2009	NM	NM	NM	NM
MW-7	8/26/2008	NM	NM	NM	NM
	10/9/2008	NM	NM	NM	NM
	2/23-24/2009	NM	NM	NM	NM
	4/9/2009	NM	NM	NM	NM
MW-8	8/26/2008	7.0	251.0	15.0	NM
	10/9/2008	7.1	320.0	16.0	487
	2/23-24/2009	7.7	350.0	13.0	209
	4/9/2009	7.4	320.0	14.5	31.3
MW-9	8/26/2008	6.9	190.0	15	>1000
	10/9/2008	NM	NM	NM	NM
	2/23-24/2009	6.8	270.0	13	>1000
	4/9/2009	7.0	190.0	13.5	>1000

NM- Not Measured
Note: Data Collected by Don Misenheimer, Clark Wipfield and Richard Sheehan of RSG Engineers Inc.

RICHARDSON SMITH GARDNER & ASSOCIATES
ENGINEERING & GEOLOGICAL SERVICES

Table 3
Detected Inorganic & Organic Constituents
Davidson County Lined Landfill

Parameter	Date	SWSL	2L or GWP	MW-1	MW-2	MW-3s	MW-3D	MW-4s	MW-4D	MW-5	MW-6s	MW-6D	MW-7	MW-8	MW-9	SW-1	SW-2	SW-3	Blank
Inorganic Constituents																			
antimony	8/26/2008	6	1.4	ND	0.5 J	0.1 J	ND	NS	ND	ND	ND	ND	NS	ND	ND	NS	NS	NS	ND
	10/29/2008			ND	ND	ND	ND	ND	0.1 J	ND	0.3 J	NS	NS	0.1 J	ND	NS	NS	NS	ND
	2/23-24/2009			ND	0.2 J	ND	ND	ND	ND	ND	0.2 J	NS	NS	ND	ND	NS	NS	NS	ND
	4/9/2009			ND	ND	ND	ND	ND	0.1 J	0.1 J	ND	NS	NS	ND	ND	0.2 J	0.2 J	ND	ND
arsenic	8/26/2008	10	50	ND	2.2 J	0.3 J	0.7 J	NS	0.5 J	0.3 J	3.8 J	5.0 J	NS	0.7 J	3.0 J	NS	NS	NS	ND
	10/29/2008			ND	2.8 J	ND	0.7 J	0.3 J	0.5 J	0.8 J	5.6 J	NS	NS	0.36 J	9 J	NS	NS	NS	ND
	2/23-24/2009			1.2 J	2.9 J	0.2 J	0.8 J	1 J	0.6 J	0.4 J	3.6 J	NS	NS	0.6 J	3.2 J	NS	NS	NS	ND
	4/9/2009			1.5 J	2.8 J	0.9 J	1 J	1.9 J	0.5 J	0.8 J	3.2 J	NS	NS	0.7 J	3.5 J	1.1 J	0.7 J	ND	ND
barium	8/26/2008	100	2000	ND	**113**	43.7 J	25.2 J	NS	43.5 J	10.5 J	**859**	**296**	NS	21.1 J	**270**	NS	NS	NS	ND
	10/29/2008			ND	**163**	33.6 J	21.3 J	63.8 J	52.2 J	66.6 J	**1356**	NS	NS	20.4 J	**1251**	NS	NS	NS	ND
	2/23-24/2009			**279**	**164**	32 J	34.1 J	**199**	35 J	23.7 J	**1625**	NS	NS	13.3 J	**373**	NS	NS	NS	ND
	4/9/2009			**218**	**165**	44.4 J	37.6 J	**193**	37.4 J	22.8 J	**818**	NS	NS	8.7 J	**186**	29.2 J	30.7 J	22.7 J	ND
beryllium	8/26/2008	1	4	ND	0.4 J	ND	ND	NS	ND	ND	0.8 J	0.5 J	NS	ND	**1**	NS	NS	NS	ND
	10/29/2008			ND	0.6 J	0.1 J	ND	0.1 J	ND	0.3 J	**1**	NS	NS	0.1 J	**4**	NS	NS	NS	ND
	2/23-24/2009			0.3 J	0.5 J	ND	ND	0.2 J	ND	0.1 J	1.4	NS	NS	ND	**1.4**	NS	NS	NS	ND
	4/9/2009			0.3 J	0.4 J	0.1 J	ND	0.2 J	ND	0.1 J	0.8 J	NS	NS	ND	0.7 J	ND	ND	ND	ND
cadmium	8/26/2008	1	1.75	ND	0.3 J	0.5 J	0.5 J	NS	0.4 J	0.3 J	0.4 J	0.6 J	NS	0.1 J	0.4 J	NS	NS	NS	ND
	10/29/2008			ND	0.3 J	0.3 J	0.2 J	0.1 J	0.2 J	0.2 J	0.6 J	NS	NS	0.3 J	**1**	NS	NS	NS	ND
	2/23-24/2009			0.2 J	0.2 J	0.1 J	ND	0.1 J	ND	ND	0.6 J	NS	NS	0.1 J	0.5 J	NS	NS	NS	ND
	4/9/2009			0.2 J	0.3 J	0.2 J	ND	0.2 J	0.1 J	0.1 J	0.4 J	NS	NS	0.1 J	**4.5**	0.2 J	ND	ND	ND
cobalt	8/26/2008	10	70	ND	**39**	5.2 J	0.2 J	NS	0.3 J	1.2 J	**82**	**33**	NS	2.7 J	**36**	NS	NS	NS	ND
	10/29/2008			ND	**14**	4.7 J	0.3 J	7 J	1 J	**10**	**122**	NS	NS	3.5 J	**150**	NS	NS	NS	ND
	2/23-24/2009			**26**	**14**	1.6 J	1.5 J	**17**	0.3 J	5.3 J	**143**	NS	NS	2.8 J	**16**	NS	NS	NS	ND
	4/9/2009			**18**	**12**	3.1 J	1.1 J	**20**	0.2 J	4.3 J	**27**	NS	NS	1.4 J	**10**	0.5 J	0.4 J	1.4 J	ND
copper	8/26/2008	10	1000	ND	**67**	4.0 J	1.0 J	NS	0.9 J	6.6 J	**515**	**157**	NS	12	**123**	NS	NS	NS	ND
	10/29/2008			ND	**108**	3.5 J	1.0 J	**57**	4.8 J	**32**	**823**	NS	NS	**12**	**541**	NS	NS	NS	ND
	2/23-24/2009			**330**	**126**	4.7 J	3.8 J	**200**	2.0 J	**20**	**827**	NS	NS	11	**227**	NS	NS	NS	ND
	4/9/2009			**216**	**110**	7.7 J	1.4 J	**176**	1.9 J	**17**	**372**	NS	NS	5.2 J	**82**	2.7 J	2 J	1.8 J	ND
chromium, total	8/26/2008	10	50	ND	**65**	5.1 J	ND	NS	ND	1.8 J	**132**	**69**	NS	18	**44**	NS	NS	NS	ND
	10/29/2008			ND	**107**	6.5 J	ND	9.8 J	1.5 J	**12**	**201**	NS	NS	**19**	**224**	NS	NS	NS	ND
	2/23-24/2009			**20**	**83**	6.5 J	1.0 J	**21**	0.3 J	6.0 J	**162**	NS	NS	13	**76**	NS	NS	NS	ND
	4/9/2009			**14**	**107**	**14**	ND	**25**	ND	4 J	**60**	NS	NS	5.9 J	**20**	0.4 J	ND	0.2 J	ND
lead	8/26/2008	10	15	ND	**11**	0.8 J	0.2 J	NS	0.1 J	0.8 J	**15.9**	**10**	NS	2.4 J	9.5 J	NS	NS	NS	ND
	10/29/2008			ND	**13**	0.7 J	0.2 J	3 J	0.5 J	9.3 J	**28**	NS	NS	2.5 J	**47**	NS	NS	NS	ND
	2/23-24/2009			**10**	**11**	0.5 J	0.6 J	5.5 J	0.1 J	2.4 J	**26**	NS	NS	1.9 J	**17**	NS	NS	NS	ND
	4/9/2009			8.1 J	**10**	1.2 J	0.2 J	4.9 J	0.1 J	1.6 J	**13**	NS	NS	0.8 J	8.1 J	0.3 J	0.2 J	0.1 J	ND
nickel	8/26/2008	50	100	ND	9.7 J	3.7 J	1.1 J	NS	1.0 J	2.0 J	**92**	34.6 J	NS	9.6 J	7.3 J	NS	NS	NS	ND
	10/29/2008			ND	16.1 J	4 J	1.0 J	7.1 J	1.7 J	11.8 J	**135**	NS	NS	12.5 J	13.6 J	NS	NS	NS	ND
	2/23-24/2009			23.8 J	16.1 J	3 J	2.3 J	14.1 J	0.9 J	6.1 J	**135**	NS	NS	8.5 J	9.7 J	NS	NS	NS	ND
	4/9/2009			15.9 J	12.7 J	4.4 J	1.7 J	17.9 J	1 J	5.1 J	26.7 J	NS	NS	4.7 J	6.8 J	1.8 J	1.7 J	1.0 J	ND
selenium	8/26/2008	10	50	ND	0.5 J	0.5 J	0.3 J	NS	ND	ND	0.9 J	2.3 J	NS	ND	1.4 J	NS	NS	NS	ND
	10/29/2008			ND	0.5 J	0.5 J	0.3 J	ND	0.3 J	ND	1.2 J	NS	NS	ND	3.8 J	NS	NS	NS	ND
	2/23-24/2009			0.2 J	0.3 J	0.7 J	0.7 J	0.2 J	ND	ND	1.2 J	NS	NS	ND	1.4 J	NS	NS	NS	ND
	4/9/2009			ND	ND	0.5 J	ND	ND	ND	ND	0.9 J	NS	NS	ND	1.5 J	ND	ND	0.3 J	ND

RICHARDSON SMITH GARDNER & ASSOCIATES
ENGINEERING & GEOLOGICAL SERVICES

Table 3
Detected Inorganic & Organic Constituents
Davidson County Lined Landfill

Parameter	Date	SWSL	2L or GWP	MW-1	MW-2	MW-3s	MW-3D	MW-4s	MW-4D	MW-5	MW-6s	MW-6D	MW-7	MW-8	MW-9	SW-1	SW-2	SW-3	Blank
Inorganic Constituents (Cont.)																			
silver	8/26/2008	10	17.5	ND	0.3 J	ND	ND	NS	ND	ND	0.7 J	0.1 J	NS	ND	0.3 J	NS	NS	NS	ND
	10/29/2008			ND	0.4 J	ND	ND	0.1 J	0.1 J	0.1 J	0.5 J	NS	NS	0.1 J	0.9 J	NS	NS	NS	ND
	2/23-24/2009			0.2 J	0.4 J	0.1 J	0.1 J	0.2 J	ND	ND	0.4 J	NS	NS	0.1 J	0.3 J	NS	NS	NS	ND
	4/9/2009			0.1 J	0.4 J	ND	ND	0.3 J	ND	0.1 J	0.2 J	NS	NS	ND	0.2 J	0.1 J	0.1 J	ND	ND
thallium	8/26/2008	5	0.28	ND	0.1 J	ND	ND	NS	ND	ND	0.4 J	0.1 J	NS	ND	0.2 J	NS	NS	NS	ND
	10/29/2008			ND	0.1 J	ND	ND	ND	0.1 J	0.1 J	0.7 J	NS	NS	ND	0.5 J	NS	NS	NS	ND
	2/23-24/2009			**5**	0.2 J	ND	ND	0.2 J	ND	ND	0.9 J	NS	NS	ND	0.2 J	NS	NS	NS	ND
	4/9/2009			0.2 J	0.1 J	ND	ND	0.1 J	ND	ND	0.3 J	NS	NS	ND	0.1 J	ND	ND	ND	ND
vanadium	8/26/2008	25	3.5	ND	**84**	17.3 J	3.6 J	NS	9.8 J	7.9 J	**262**	**172**	NS	15.7 J	**179**	NS	NS	NS	ND
	10/29/2008			ND	**129**	18.9 J	1.1 J	**44**	14 J	**39**	**453**	NS	NS	14.3 J	**779**	NS	NS	NS	ND
	2/23-24/2009			**129**	**151**	19.9 J	8.7 J	**119**	11 J	24.5 J	**431**	NS	NS	16.7 J	**367**	NS	NS	NS	ND
	4/9/2009			**91**	**141**	**33**	7.5 J	**126**	12.4 J	23 J	**205**	NS	NS	14.7 J	**122**	3.7 J	3.4 J	3.1 J	ND
zinc	8/26/2008	10	1050	ND	**43**	23	**12**	NS	9.0 J	8.1 J	**362**	**109**	NS	**11**	**59**	NS	NS	NS	ND
	10/29/2008			ND	**47**	9.5 J	**23**	**25**	6.1 J	**55**	**631**	NS	NS	**12.3**	**269**	NS	NS	NS	ND
	2/23-24/2009			**112**	**40**	6.6 J	15	**70**	2 J	**19**	**705**	NS	NS	6.1 J	**88**	NS	NS	NS	ND
	4/9/2009			**91**	**44**	**14**	9.3 J	**86**	3.4 J	**18**	**268**	NS	NS	4.3 J	**64**	6.1 J	3.7 J	4.1 J	ND
Organic Constituents																			
chloromethane	8/26/2008	1	2.6	ND	ND	ND	ND	NS	ND	ND	ND	0.5 J	NS	ND	ND	NS	NS	NS	ND
	2/23-24/2009			ND	ND	0.20 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	NS	0.2 J
vinyl chloride	8/26/2008	1	0.015	ND	ND	ND	ND	ND	ND	ND	ND	0.4 J	ND	ND	ND	NS	NS	NS	ND
acetone	8/26/2008	100	700	ND	2.4 J	2.4 J	3.5 J	NS	2.7 J	2.1 J	1.9 J	3.8 J	NS	2.1 J	2.9 J	NS	NS	NS	1.4 J
	10/29/2008			ND	ND	ND	1.5 J	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND
	2/23-24/2009			ND	1.4 J	6.5 J	8.6 J	ND	ND	ND	ND	ND	ND	ND	2.9 J	NS	NS	NS	ND
	4/9/2009			ND	1.3 J	ND	2.8 J	ND	ND	ND	4.90 J	NS	NS	ND	ND	1.3 J	ND	ND	ND
chloroform	8/26/2008	5	70	ND	0.3 J	ND	ND	NS	ND	ND	ND	ND	NS	ND	ND	NS	NS	NS	ND
carbon disulfide	8/26/2008	100	700	ND	ND	ND	ND	NS	ND	ND	ND	5.40 J	NS	ND	ND	NS	NS	NS	ND
	2/23-24/2009			ND	ND	ND	0.4 J	ND	0.3 J	ND	ND	ND	ND	0.20 J	ND	NS	NS	NS	ND
	4/9/2009			ND	ND	ND	0.7 J	ND	0.2 J	ND	ND	NS	NS	ND	ND	ND	ND	ND	ND
methylene chloride	8/26/2008	1	4.6	ND	ND	ND	ND	NS	ND	ND	ND	ND	NS	ND	ND	NS	NS	NS	ND
	2/23-24/2009			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	NS	0.4 J
	4/9/2009			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.2 J
toluene	8/26/2008	1	1000	ND	ND	ND	0.6 J	NS	ND	ND	ND	ND	NS	ND	ND	NS	NS	NS	ND
	10/29/2008			ND	ND	ND	0.4 J	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	NS	0.2 J
	2/23-24/2009			ND	ND	ND	0.2 J	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND
	4/9/2009			0.2 J	0.2 J	0.2 J	0.2 J	0.2 J	ND	0.2 J	0.2 J	NS	NS	0.2 J	0.2 J	ND	ND	ND	0.3 J

SWSL - Solid Waste Section Limits
GWP - Ground Water Protection Standard
ND - Not detected
Shading - Levels above 2L standard or no 2L standard
Bold Letters - Constituent detected above SWSL limit

J - Constituents detected below SWSL limit
NS - Not sampled
- All units are in ug/L.
- Data Analyses by Environment 1, Inc.

RICHARDSON SMITH GARDNER & ASSOCIATES
ENGINEERING & GEOLOGICAL SERVICES

Table 4
Davidson County Phase 2 Area 1 Monitoring Well
Aquifer Conductivity and Velocity

Well Number	Aquifer	Conductivity (ft/day)	Conductivity (ft/min)	Assumed Porosity (n)	Gradient (I)	Velocity (ft/day)
MW-1	Sandy Silt	1.61E-03	1.12E-06	0.18	NA	NA
MW-2	Sandy Silt	6.75E-02	4.69E-05	0.18	0.056	2.10E-02
MW-3s	Sand	8.60E-02	5.97E-05	0.20	0.032	1.38E-02
MW-3d	Granite	3.42E-02	2.38E-05	0.10	0.032	1.09E-02
MW-4s	Sandy Silt	6.22E-02	4.32E-05	0.18	0.07	2.42E-02
MW-4d	Diorite	7.55E+00	5.24E-03	0.10	0.101	7.63E+00
MW-5	Clayey Silt	4.31E-01	2.99E-04	0.18	0.068	1.63E-01
MW-6s	Sand and Gravel	4.64E-01	3.22E-04	0.22	0.0605	1.28E-01
MW-6d	Diorite	NA	NA	NA	NA	NA
MW-7	Diorite	NA	NA	NA	NA	NA
MW-8	Diorite	4.90E-01	3.40E-04	0.10	0.027	1.32E-01
MW-9	Diorite	7.20E-01	5.00E-04	0.10	0.15	1.08E+00

NA = Well had insufficient water to perform Slug Test.
Porosity assumed based upon soil type from monitoring well boring log.
Velocity Calculated by equation V = KI/n
Gradient for bedrock wells assumed to be the same as for unconsolidated aquifer in
Gradient calculated from April 2009 potentiometric surface.

Appendix A

Monitoring Well Boring Logs

Richardson Smith Gardner and Assoc
14 North Boylan Avenue, Raleigh NC 27603
(919) 828-0577

FIELD BOREHOLE LOG

BOREHOLE NUMBER **MW-1**

PROJECT NAME: **Davidson County Landfill**
LOCATION: **Davidson County**
DRILLING CO: **Engineering Tectonics, P.A.**
DRILLING METHOD: **HSA**
FIELD PARTY: **David Barron**
GEOLOGIST: **Clark Wipfield**
DATE BEGUN: **3/25/08** DATE COMPLETED: **3/25/08**

TOTAL DEPTH: **20 ft.**
GROUND SURFACE ELEVATION:
TOP OF CASING ELEVATION:

STATIC WATER LEVEL (TOC)		
Depth (ft)		
Time		
Date		

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION	LITHOLOGY	DEPTH	WELL INSTALLATION
0.0		SS		HSA	SILT: Dry brown silt.		0.0	
1.0							1.0	
2.0							2.0	
3.0							3.0	
4.0							4.0	
5.0	7,10,11	SS	18"		SANDY SILT: Moist gray and white sandy silt with Fe oxidation. High organic content at 15 ft. Some dark gray gravel at 20 ft. B.T. at 20ft.		5.0	
6.0							6.0	
7.0							7.0	
8.0							8.0	
9.0							9.0	
10.0	8,10,13	SS	16"				10.0	
11.0							11.0	
12.0							12.0	
13.0							13.0	
14.0							14.0	
15.0	38,50/4	SS	6"				15.0	
16.0							16.0	
17.0							17.0	
18.0							18.0	
19.0							19.0	
20.0							20.0	

Richardson Smith Gardner and Assoc
14 North Boylan Avenue, Raleigh NC 27603
(919) 828-0577

FIELD BOREHOLE LOG

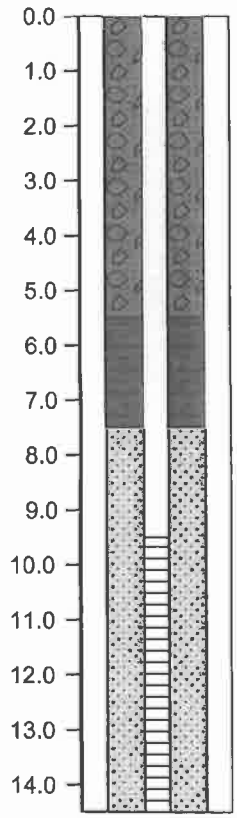
BOREHOLE NUMBER **MW-2** Page 1 of 1

PROJECT NAME: **Davidson County - Phase 2**
LOCATION: **Lexington, NC**
DRILLING CO: **Engineering Tectonics, P.A.**
DRILLING METHOD: **HSA**
FIELD PARTY: **David Barron**
GEOLOGIST: **Clark Wipfield**
DATE BEGUN: **8/12/08** DATE COMPLETED: **8/12/08**

TOTAL DEPTH: **14.5**
GROUND SURFACE ELEVATION:
TOP OF CASING ELEVATION:

STATIC WATER LEVEL (TOC)		
Depth (ft)	13.06	
Time	11:00 am	
Date	8/12/08	

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION	LITHOLOGY
0.0				HSA	SILT: Dry dark brown silt with samll quarz fragments and black mottles.	
1.0						
2.0						
3.0						
4.0						
5.0	10,12,15	SS	18"		SANDY SILT: Moist sandy silt with partially weathered andesite and Fe spotting.	
6.0						
7.0						
8.0						
9.0						
10.0	8,17,23	SS	18"			
11.0						
12.0						
13.0		Grab			GRANITE: Dry, partially weathered granite. B.T. @ 14.5 feet.	
14.0						



Richardson Smith Gardner and Assoc
14 North Boylan Avenue, Raleigh NC 27603
(919) 828-0577

FIELD BOREHOLE LOG

BOREHOLE NUMBER **MW-3D** Page 1 of 1

PROJECT NAME: **Davidson County Landfill**
LOCATION: **Davidson County**
DRILLING CO: **Engineering Tectonics, P.A.**
DRILLING METHOD: **HSA**
FIELD PARTY: **Daivd Barron**
GEOLOGIST: **Clark Wipfield**
DATE BEGUN: **3/26/08** DATE COMPLETED: **3/26/08**

TOTAL DEPTH: **40.5 ft.**
GROUND SURFACE ELEVATION:
TOP OF CASING ELEVATION:

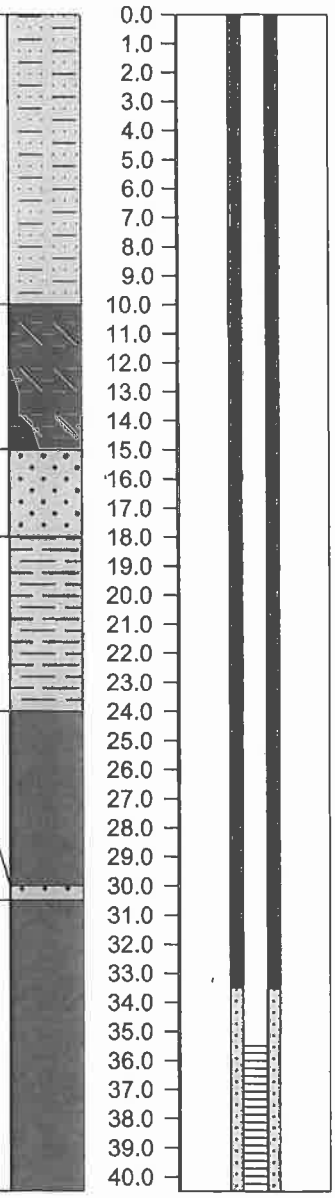
STATIC WATER LEVEL (TOC)		
Depth (ft)		
Time		
Date		

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION
0.0–5.0				HSA	CLAYEY SAND: Upper 9" is gray to red brown wet clayey silt with organics. Bottom 3" is dry compacted clay with fine grained sandy silty clay with Fe spots.
5.0–6.0	3,3,5	SS	18"		
6.0–10.0					
10.0–11.0	11,13,17	SS	10"		CLAY AND SAND: Gray clay and fine grained sand conglomerate, with large organic material. Some Fe oxidation with bottom 5" wet.
11.0–15.0					
15.0–16.0	3,7,5	SS	8"		SAND: Course grained wet gray sand with quartz gravel.
16.0–18.0					
18.0–21.0	50/3	SS	4"		SANDY SILT: Wet course grained sticky gray sandy silt. A.R. 24 ft.
21.0–24.0					
24.0–29.0		SS		AH	GRANITE: Weathered boulder.
29.0–30.0					SAND: 6" thick fine to coarse sand layer.
30.0–35.0		Grab			GRANITE: Weathered granite, wet. B.T. 40.5 ft.
35.0–40.0		Grab			
40.0		Grab			

LITHOLOGY

DEPTH

WELL INSTALLATION



Richardson Smith Gardner and Assoc
14 North Boylan Avenue, Raleigh NC 27603
(919) 828-0577

FIELD BOREHOLE LOG

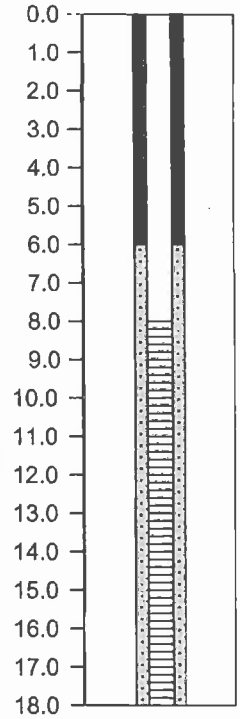
BOREHOLE NUMBER **MW-3s** Page 1 of 1

PROJECT NAME: **Davidson County**
LOCATION: **Davidson County Landfill**
DRILLING CO: **Engineering Tectonics, P.A.**
DRILLING METHOD: **HSA**
FIELD PARTY: **David Barron**
GEOLOGIST: **Clark Wipfield**
DATE BEGUN: **3/24/08** DATE COMPLETED: **3/24/08**

TOTAL DEPTH: **18 ft.**
GROUND SURFACE ELEVATION:
TOP OF CASING ELEVATION:

STATIC WATER LEVEL (TOC)		
Depth (ft)	6.21	
Time	1:10pm	
Date	3/27/08	

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION	LITHOLOGY
0.0		SS		HSA	CLAYEY SILT: Upper 9" is grAy to red brown wet clayey silt with organics. Bottom 3" is dry, compacted clay; and fine grained sandy silty clay with Fe spots.	
1.0						
2.0						
3.0						
4.0						
5.0	3,3,5	SS	18"			
6.0						
7.0						
8.0						
9.0						
10.0	11,13,17	SS	10"		CLAY AND SAND: Gray clay and fine grained sand conglomerate with large organic material. Some Fe oxidation, with bottom 5" wet.	
11.0						
12.0						
13.0						
14.0						
15.0	3,7,5	SS	8"		SAND: Course grained wet gray sand with quartz gravel. B.T. 18 ft.	
16.0						
17.0						
18.0						



DEPTH WELL INSTALLATION

Richardson Smith Gardner and Assoc
14 North Boylan Avenue, Raleigh NC 27603
(919) 828-0577

FIELD BOREHOLE LOG

BOREHOLE NUMBER **MW-4D**

PROJECT NAME: **Davidson County**
LOCATION: **Davidson County Landfill**
DRILLING CO: **Engineering Tectonics, P.A.**
DRILLING METHOD: **HSA and AH**
FIELD PARTY: **David Barron**
GEOLOGIST: **Clark Wipfield**
DATE BEGUN: **3/26/08** DATE COMPLETED: **3/26/08**

TOTAL DEPTH: **37 ft.**
GROUND SURFACE ELEVATION:
TOP OF CASING ELEVATION:

STATIC WATER LEVEL (TOC)		
Depth (ft)		
Time		
Date		

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION	LITHOLOGY	DEPTH	WELL INSTALLATION
0.0		SS		HSA	SILT: Dry reddish brown silt with Mn mottling.		0.0	
1.0							1.0	
2.0							2.0	
3.0							3.0	
4.0							4.0	
5.0	6,9,11	SS	18"				5.0	
6.0							6.0	
7.0							7.0	
8.0							8.0	
9.0							9.0	
10.0	8,10,15	SS	18"		CLAYEY SILT: Dry brownish yellow clayey silt, with slight red tint and Mn mottling.		10.0	
11.0							11.0	
12.0							12.0	
13.0							13.0	
14.0							14.0	
15.0	46,33,45	SS	9"		SILTY CLAY: Upper 4" is dry gray and dark reddish brown, lower 5" is Gray/white fine grained silt.		15.0	
16.0							16.0	
17.0							17.0	
18.0							18.0	
19.0					SANDY CLAY: Small amounts of dry white/gray granite from partially weathered rock. A.R. at 21 ft.		19.0	
20.0	50/2	SS	2"				20.0	
21.0				AH	DIORITE: Dry diorite fracture at 36 ft.		21.0	
22.0							22.0	
23.0							23.0	
24.0							24.0	
25.0		Grab					25.0	
26.0							26.0	
27.0							27.0	
28.0							28.0	
29.0							29.0	
30.0		Grab					30.0	
31.0							31.0	
32.0							32.0	
33.0							33.0	
34.0							34.0	
35.0		Grab					35.0	
36.0							36.0	
37.0							37.0	

Richardson Smith Gardner and Assoc
14 North Boylan Avenue, Raleigh NC 27603
(919) 828-0577

FIELD BOREHOLE LOG

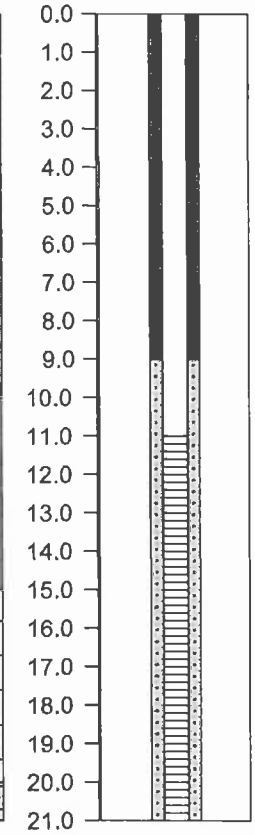
BOREHOLE NUMBER **MW-4s** Page 1 of 1

PROJECT NAME: **Davidson County**
LOCATION: **Davidson County Landfill**
DRILLING CO: **Engineering Tectonics, P.A.**
DRILLING METHOD: **HSA**
FIELD PARTY: **David Barron**
GEOLOGIST: **Clark Wipfield**
DATE BEGUN: **3/24/08** DATE COMPLETED: **3/24/08**

TOTAL DEPTH: **21**
GROUND SURFACE ELEVATION:
TOP OF CASING ELEVATION:

STATIC WATER LEVEL (TOC)		
Depth (ft)	18.97	
Time	1:30pm	
Date	3/27/08	

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION	LITHOLOGY
0.0		SS		HSA	SILT: Dry reddish brown silt with Mn mottles.	
1.0						
2.0						
3.0						
4.0						
5.0	6,9,11	SS	18"			
6.0						
7.0						
8.0						
9.0						
10.0	8,10,15	SS	18"		CLAYEY SILT: dry brownish yellow clayey silt, with slight red tint and Mn mottles.	
11.0						
12.0						
13.0						
14.0						
15.0	46,33,45	SS	9"		SILTY CLAY: Upper 4" is dry gray and dark reddish brown, lower 5" is gray/white fine grained silt.	
16.0						
17.0						
18.0						
19.0					SANDY SILT: Dry white/gray with small amounts of granite from partially weathered rock. A.R. at 21ft.	
20.0	50/2	SS	2"			
21.0						



DEPTH | WELL INSTALLATION

Richardson Smith Gardner and Assoc
14 North Boylan Avenue, Raleigh NC 27603
(919) 828-0577

FIELD BOREHOLE LOG

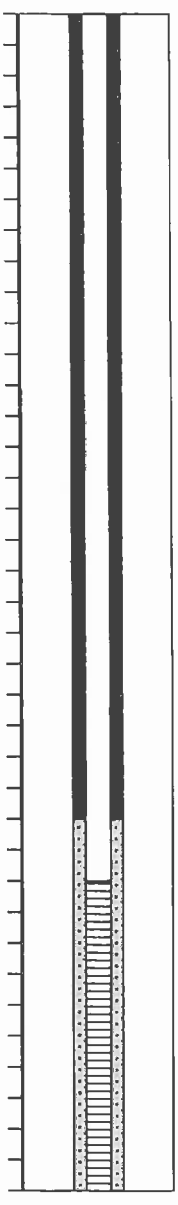
BOREHOLE NUMBER **MW-5**

PROJECT NAME: **Davidson County**
LOCATION: **Davidson County Landfill**
DRILLING CO: **Engineering Tectonics, P.A.**
DRILLING METHOD: **HSA**
FIELD PARTY: **David Barron**
GEOLOGIST: **Clark Wipfield**
DATE BEGUN: **3/24/08** DATE COMPLETED: **3/24/08**

TOTAL DEPTH: **38 ft.**
GROUND SURFACE ELEVATION:
TOP OF CASING ELEVATION:

STATIC WATER LEVEL (TOC)		
Depth (ft)	27.77	
Time	1:40pm	
Date	3/27/08	

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION	LITHOLOGY	DEPTH	WELL INSTALLATION
0.0		SS	18"	HSA	SILTY CLAY: Dry red silty clay		0.0	
5.0	3,9,7	SS	14"				5.0	
10.0	6,9,14	SS	17"		CLAY AND SAND: Upper 4" red clay, middle 8" white and brown fine grained sand with organics, bottom 5" white/ gray clay silt.		10.0	
15.0	4,4,7	SS	14"		CLAYEY SILT: Moist white and gray clayey silt with Fe oxidation incremental banding from 45 degrees to parallel respectively. Brown sand observed at 36 ft. B.T. at 38 ft.		15.0	
20.0	5,10,15	SS	16"				20.0	
25.0	13,20,27	SS	10"				25.0	
30.0	9,17,27	SS	12"				30.0	
35.0	27,26,50/6	SS	14"				35.0	



Richardson Smith Gardner and Assoc
14 North Boylan Avenue, Raleigh NC 27603
(919) 828-0577

FIELD BOREHOLE LOG

BOREHOLE NUMBER **MW-6D**

PROJECT NAME: **Davidson County Landfill**
LOCATION: **Davidson County**
DRILLING CO: **Engineering Tectoncis, P.A.**
DRILLING METHOD: **HSA and AH**
FIELD PARTY: **David Barron**
GEOLOGIST: **Clark Wipfield**
DATE BEGUN: **3/27/08** DATE COMPLETED: **3/27/08**

TOTAL DEPTH: **70.5 ft.**
GROUND SURFACE ELEVATION:
TOP OF CASING ELEVATION:

STATIC WATER LEVEL (TOC)		
Depth (ft)		
Time		
Date		

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION	LITHOLOGY	DEPTH	WELL INSTALLATION
0.0				HSA	SANDY SILT: Brownish fine grained yellow sandy silt with Mn spots in upper 10". Lower portion is white/ gray compacted fine grained sandy silt quartz fragments increase in size with depth. Increased percent of Fe banding and oxidation with depth.		0.0	
5.0	28,37,50/1	SS	13"				5.0	
10.0	20,36,31	SS	17"				10.0	
15.0	23,36,50/6	SS	14"				15.0	
20.0	32,44,50/5	SS	18"				20.0	
25.0	50/5	SS	18"		SILT: Upper 14" is sticky wet viscous silt with Fe oxidation. Lower 4" hard compact gray/white silt.		25.0	
30.0	29,32,50/4	SS	12"		SANDY SILT: Brownish yellow sandy silt with Fe oxidation and quartz bands at 45 degree angles.		30.0	
35.0	28,50/5	SS	10"		GRAVEL AND SAND: Upper 4" wet gravel with large rock with medium grained sand. Lower 6" poorly sorted, mostly white silty		35.0	
37.0							37.0	

Richardson Smith Gardner and Assoc
14 North Boylan Avenue, Raleigh NC 27603
(919) 828-0577

FIELD BOREHOLE LOG

BOREHOLE NUMBER **MW-6D**

PROJECT NAME: **Davidson County Landfill**
LOCATION: **Davidson County**
DRILLING CO: **Engineering Tectoncis, P.A.**
DRILLING METHOD: **HSA and AH**
FIELD PARTY: **David Barron**
GEOLOGIST: **Clark Wipfield**
DATE BEGUN: **3/27/08** DATE COMPLETED: **3/27/08**

TOTAL DEPTH: **70.5 ft.**
GROUND SURFACE ELEVATION:
TOP OF CASING ELEVATION:

STATIC WATER LEVEL (TOC)		
Depth (ft)		
Time		
Date		

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION	LITHOLOGY	DEPTH	WELL INSTALLATION
37.0					sand, with quartz fragments.		37.0	
38.0							38.0	
39.0							39.0	
40.0	41,42,50/6	SS	5"		SILT AND SAND: Upper 2" wet silty gray sand. Bottom 3" dry white and gray sandy silt with black and Fe spots.		40.0	
41.0							41.0	
42.0							42.0	
43.0							43.0	
44.0							44.0	
45.0	19,27,50	SS	14"		SANDY SILT: Gray and light red sandy silt with Fe oxidation bands.		45.0	
46.0							46.0	
47.0							47.0	
48.0							48.0	
49.0					SILTY SAND: Wet white and gray silty sand with dark brown coarse sand. A.R. at 51 ft.		49.0	
50.0	50/2	SS	50/2"				50.0	
51.0				AH	GRANITE: Weathered granite		51.0	
52.0							52.0	
53.0							53.0	
54.0							54.0	
55.0		Grab					55.0	
56.0							56.0	
57.0							57.0	
58.0							58.0	
59.0							59.0	
60.0		Grab					60.0	
61.0							61.0	
62.0							62.0	
63.0							63.0	
64.0							64.0	
65.0		Grab					65.0	
66.0							66.0	
67.0					DIORITE: Large fracture at 68' produced a lot of water. B.T. at 70.5 ft.		67.0	
68.0							68.0	
69.0							69.0	
70.0							70.0	

Richardson Smith Gardner and Assoc
14 North Boylan Avenue, Raleigh NC 27603
(919) 828-0577

FIELD BOREHOLE LOG

BOREHOLE NUMBER **MW-6s** Page 1 of 1

PROJECT NAME: **Davidson County**
LOCATION: **Davidson County Landfill**
DRILLING CO: **Engineering Tectonics, P.A.**
DRILLING METHOD: **HSA**
FIELD PARTY: **David Barron**
GEOLOGIST: **Clark Wipfield**
DATE BEGUN: **3/25/08** DATE COMPLETED: **3/25/08**

TOTAL DEPTH: **40 ft.**
GROUND SURFACE ELEVATION:
TOP OF CASING ELEVATION:

STATIC WATER LEVEL (TOC)		
Depth (ft)	33.60	
Time	2:00pm	
Date	3/27/08	

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION	LITHOLOGY	DEPTH	WELL INSTALLATION
0.0–5.0				HSA	SANDY SILT: Brownish fine grained yellow sandy silt with Mn spots in upper 10". Lower portion is white/ gray compacted fine grained sand with silt quartz fragments, increase in size with depth. Increased percent of Fe banding and oxidation with depth.			
5.0–6.0	28,37,50/1	SS	13"					
6.0–10.0								
10.0–11.0	20,36,31	SS	17"					
11.0–15.0								
15.0–16.0	23,36,50/6	SS	14"					
16.0–20.0								
20.0–21.0	32,44,50/5	SS	18"					
21.0–25.0								
25.0–26.0	50/5	SS	18"		SILT: Upper 14" is sticky wet viscous silt with Fe oxidation. Lower 4" hard compact gray/white silt.			
26.0–30.0								
30.0–31.0	29,32,50/4	SS	12"		SANDY SILT: Moist brownish yellow sandy silt, with Fe oxidation and quartz bands at 45 degree angles.			
31.0–35.0								
35.0–36.0	28,50/5	SS	10"		GRAVEL AND SAND: Moist brownish yellow sandy silt, with Fe oxidation and quartz banks at 45 degree angles.			
36.0–40.0					SANDY SILT: Upper 2" is wet silty gray sand. Bottom 3" is dry white & gray sandy silt, with black and Fe oxidation spots. B.T. at 40 ft.			
40.0–41.0	42,50/6	SS	5"					

Richardson Smith Gardner and Assoc
14 North Boylan Avenue, Raleigh NC 27603
(919) 828-0577

FIELD BOREHOLE LOG

BOREHOLE NUMBER **MW-7** Page 1 of 1

PROJECT NAME: **Davidson County Landfill**
LOCATION: **Holy Springs, NC**
DRILLING CO: **Engineering Tectonics, P.A.**
DRILLING METHOD: **HSA and AH**
FIELD PARTY: **David Barron**
GEOLOGIST: **Clark Wipfield**
DATE BEGUN: **3/24/08** DATE COMPLETED: **3/25/08**

TOTAL DEPTH: **37.4**
GROUND SURFACE ELEVATION:
TOP OF CASING ELEVATION:

STATIC WATER LEVEL (TOC)		
Depth (ft)		
Time		
Date		

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION	LITHOLOGY	DEPTH	WELL INSTALLATION
0.0				HSA	SANDY SILT: Dry white and gray compacted sandy silt with Fe oxidation. Minor gravel fragments with depth. A.R. at 18 ft.		0.0	
1.0							1.0	
2.0							2.0	
3.0							3.0	
4.0							4.0	
5.0	13,23,31	SS	18"				5.0	
6.0							6.0	
7.0							7.0	
8.0							8.0	
9.0							9.0	
10.0	23,50/6	SS	12"				10.0	
11.0							11.0	
12.0							12.0	
13.0							13.0	
14.0							14.0	
15.0	16,23,34	SS	18"				15.0	
16.0							16.0	
17.0							17.0	
18.0		Grab		AH	DIORITE: Very competent diorite		18.0	
19.0							19.0	
20.0							20.0	
21.0							21.0	
22.0		Grab					22.0	
23.0							23.0	
24.0							24.0	
25.0							25.0	
26.0							26.0	
27.0		Grab					27.0	
28.0							28.0	
29.0							29.0	
30.0							30.0	
31.0							31.0	
32.0		Grab					32.0	
33.0							33.0	
34.0							34.0	
35.0							35.0	
36.0							36.0	
37.0		Grab					37.0	

Richardson Smith Gardner and Assoc
14 North Boylan Avenue, Raleigh NC 27603
(919) 828-0577

FIELD BOREHOLE LOG

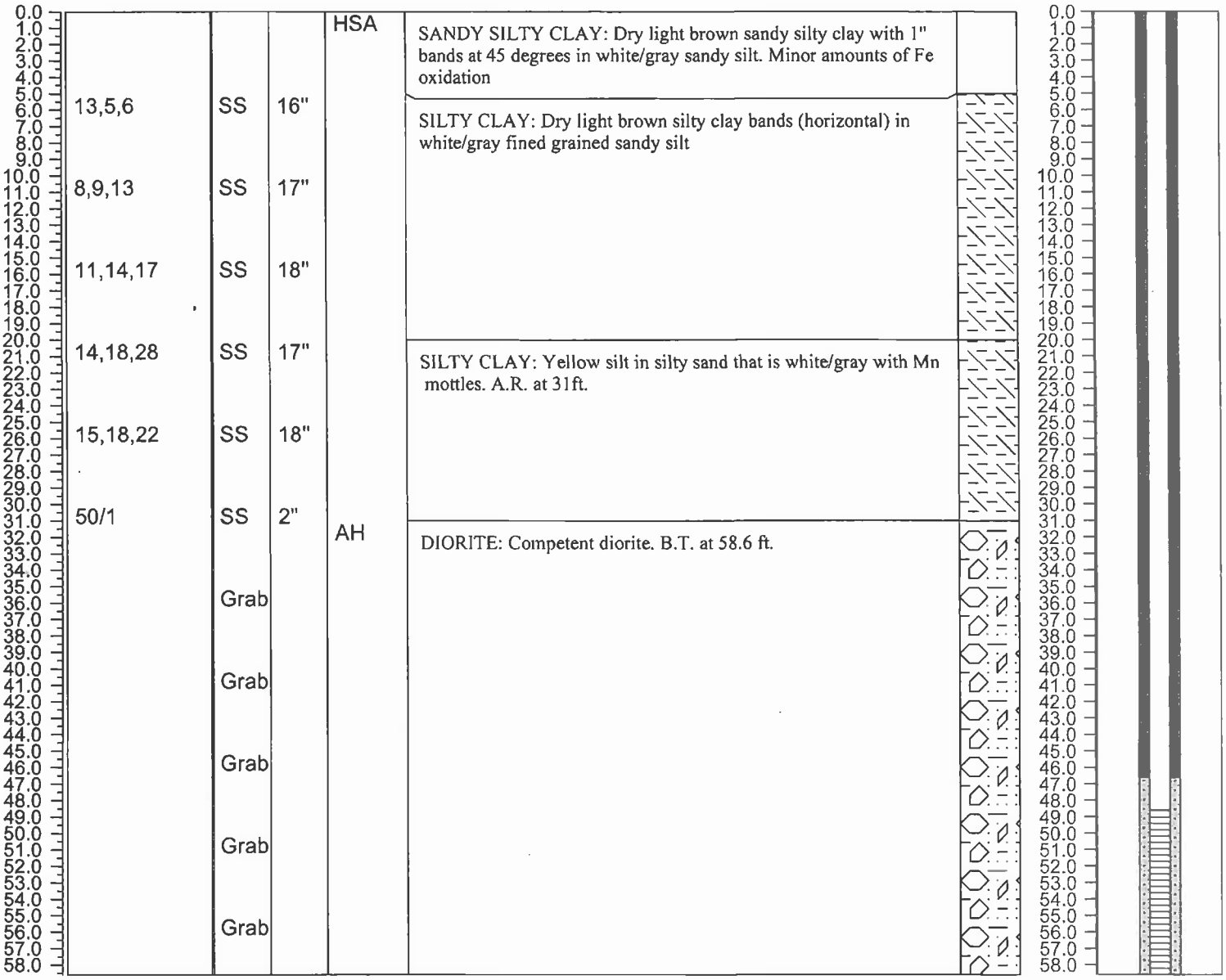
BOREHOLE NUMBER **MW-8**

PROJECT NAME: **Davidson County Landfill**
LOCATION: **Davidson County**
DRILLING CO: **Engineering Tectonics, P.A.**
DRILLING METHOD: **HSA and AH**
FIELD PARTY: **David Barron**
GEOLOGIST: **Clark Wipfield**
DATE BEGUN: **3/24/08** DATE COMPLETED: **3/25/08**

TOTAL DEPTH: **58.6**
GROUND SURFACE ELEVATION:
TOP OF CASING ELEVATION:

STATIC WATER LEVEL (TOC)		
Depth (ft)	46.58	
Time	10:45am	
Date	4/3/08	

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION	LITHOLOGY	DEPTH	WELL INSTALLATION
0.0–5.0				HSA	SANDY SILTY CLAY: Dry light brown sandy silty clay with 1" bands at 45 degrees in white/gray sandy silt. Minor amounts of Fe oxidation			
6.0	13,5,6	SS	16"		SILTY CLAY: Dry light brown silty clay bands (horizontal) in white/gray fined grained sandy silt			
11.0	8,9,13	SS	17"					
16.0	11,14,17	SS	18"					
21.0	14,18,28	SS	17"		SILTY CLAY: Yellow silt in silty sand that is white/gray with Mn mottles. A.R. at 31ft.			
26.0	15,18,22	SS	18"					
31.0	50/1	SS	2"	AH	DIORITE: Competent diorite. B.T. at 58.6 ft.			
36.0		Grab						
41.0		Grab						
46.0		Grab						
51.0		Grab						
56.0		Grab						



Richardson Smith Gardner and Assoc
14 North Boylan Avenue, Raleigh NC 27603
(919) 828-0577

FIELD BOREHOLE LOG

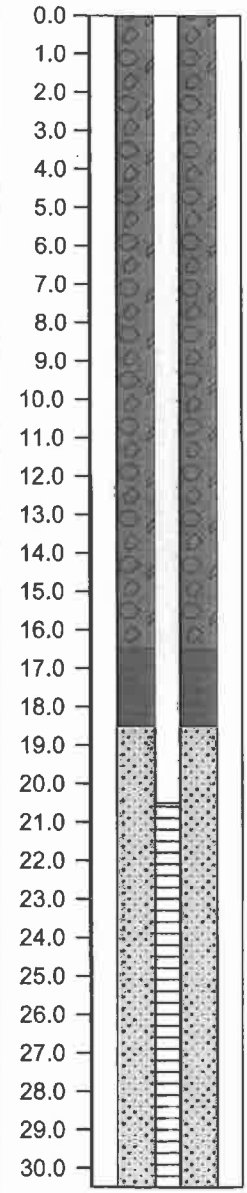
BOREHOLE NUMBER **MW-9** Page 1 of 1

PROJECT NAME: **Davidson County - Phase 2**
LOCATION: **Lexington, NC**
DRILLING CO: **Engineering Tectonics, P.A.**
DRILLING METHOD: **HSA/AH**
FIELD PARTY: **David Barron**
GEOLOGIST: **Clark Wipfield**
DATE BEGUN: **8/12/08** DATE COMPLETED: **8/14/08**

TOTAL DEPTH: **30.5**
GROUND SURFACE ELEVATION:
TOP OF CASING ELEVATION:

STATIC WATER LEVEL (TOC)		
Depth (ft)	19.35	
Time	2:30 pm	
Date	8/14/08	

DEPTH	BLOW COUNT	SAMPLING METHOD	RECOVERY	DRILL METHOD	DESCRIPTION	LITHOLOGY
0.0				HSA	SAND: Dry brown fine grained sand.	
1.0						
2.0						
3.0						
4.0						
5.0		Grab				
6.0						
7.0						
8.0						
9.0						
10.0		Grab				
11.0						
12.0						
13.0						
14.0						
15.0	50/0	SS	0"		DIORITE: Dry partially weathered diorite, with water at 21ft. Some brown/red silt with cutting at 20 feet. B.T. at 30.5 feet.	
16.0						
17.0						
18.0						
19.0						
20.0		Grab				
21.0						
22.0						
23.0						
24.0						
25.0		Grab				
26.0						
27.0						
28.0						
29.0						
30.0		Grab		AH		



NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2089

1. WELL CONTRACTOR:
David Barron
Well Contractor (Individual) Name
Eng. Tectonics
Well Contractor Company Name
STREET ADDRESS 1720 Vargrave St.
W-Salem N.C. 27107
City or Town State Zip Code
(336) 724-6994
Area code- Phone number

2. WELL INFORMATION:
SITE WELL ID #(if applicable) MW1
STATE WELL PERMIT#(if applicable)
DWQ or OTHER PERMIT #(if applicable)
WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐
Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐
Irrigation ☐ Other ☐ (list use)
DATE DRILLED 4-3-08
TIME COMPLETED 4-7-08 AM ☒ PM ☐

3. WELL LOCATION:
CITY: Thomasville COUNTY Davidson
1242 Old Hwy 29 27360-0024
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)
TOPOGRAPHIC / LAND SETTING:
☐ Slope ☐ Valley ☒ Flat ☐ Ridge ☐ Other
(check appropriate box)
LATITUDE 35 51 11.4107
LONGITUDE 80 10 34.8794
May be in degrees, minutes, seconds or in a decimal format
Latitude/longitude source: ☐ GPS ☐ Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.
FACILITY ID #(if applicable)
NAME OF FACILITY Davidson Co. Landfill
STREET ADDRESS 1242 old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
CONTACT PERSON Charlie Brushwood
MAILING ADDRESS 1242 old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
(336) 242-2284
Area code - Phone number

5. WELL DETAILS:
a. TOTAL DEPTH: 20.0'
b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒
c. WATER LEVEL Below Top of Casing: 14.1 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 3' FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.
e. YIELD (gpm): METHOD OF TEST
f. DISINFECTION: Type Amount
g. WATER ZONES (depth):
From To From To
From To From To
From To From To

6. CASING:

	Depth		Diameter	Thickness/ Weight	Material
From +3.0	To 10.0	Ft.	2"	Sch 40	PVC
From	To	Ft.			
From	To	Ft.			

7. GROUT:

	Depth		Material	Method
From 6.0'	To 8.0	Ft.	Bentonite	Tremie
From 0.0	To 6.0	Ft.	Portland	Pump
From	To	Ft.		

8. SCREEN:

	Depth		Diameter	Slot Size	Material
From 10.0	To 20.0	Ft.	2" in.	.010 in.	PVC
From	To	Ft.	in.	in.	
From	To	Ft.	in.	in.	

9. SAND/GRAVEL PACK:

	Depth		Size	Material
From 8.0	To 20.0	Ft.	#3	SAND
From	To	Ft.		
From	To	Ft.		

10. DRILLING LOG

From	To	Formation Description

11. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

David Barron 4-11-08
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

David Barron
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days: Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 7/05

919 828 2899

REC'D AUG 28 2008

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2089

1. WELL CONTRACTOR:
David BARRON
Well Contractor (Individual) Name
Eng. Tectonics
Well Contractor Company Name
STREET ADDRESS 1720 Vargrave ST.
W-Salem N.C. 27107
City or Town State Zip Code
(336) 724-6994
Area code- Phone number

2. WELL INFORMATION:
SITE WELL ID #(if applicable) MW#2
WELL CONSTRUCTION PERMIT#(if applicable)
OTHER ASSOCIATED PERMIT #(if applicable)

3. WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐ Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐ Irrigation ☐ Other ☐ (list use)
DATE DRILLED 8-11-08
TIME COMPLETED 8-15-08 AM ☒ PM ☐

4. WELL LOCATION:
CITY: Thomasville COUNTY Davidson
1160 old Hwy 29 27360-0024
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)
TOPOGRAPHIC / LAND SETTING:
☐ Slope ☒ Valley ☐ Flat ☐ Ridge ☐ Other
(check appropriate box)
LATITUDE
LONGITUDE
May be in degrees, minutes, seconds or in a decimal format
Latitude/longitude source: ☐ GPS ☐ Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

5. FACILITY- is the name of the business where the well is located.
FACILITY ID #(if applicable)
NAME OF FACILITY Davidson Co. Landfill
STREET ADDRESS 1160 old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
CONTACT PERSON Charlie Brushwood
MAILING ADDRESS 1242 old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
(336) 242-2284
Area code - Phone number

6. WELL DETAILS:
a. TOTAL DEPTH: 14.0
b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒
c. WATER LEVEL Below Top of Casing: 13.0 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 3' FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.
e. YIELD (gpm): METHOD OF TEST
f. DISINFECTION: Type Amount
g. WATER ZONES (depth):
From To From To
From To From To
From To From To

7. CASING:

From	To	Ft.	Diameter	Thickness/ Weight	Material
+3'	4'		2"	sch 40	PVC

8. GROUT:

From	To	Ft.	Material	Method
0	2.0		Portland	Tremie
2.0	3.0		Bentonite	Tremie

9. SCREEN:

From	To	Ft.	Diameter	Slot Size	Material
4.0	14.0		2" in.	.010 in.	PVC
			in.	in.	
			in.	in.	

10. SAND/GRAVEL PACK:

From	To	Ft.	Size	Material
3.0	14.0		#3	SAND

11. DRILLING LOG

From	To	Formation Description

12. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

David Barron 8-20-08
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE
DAVID BARRON
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days. Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 3/07

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2089

1. WELL CONTRACTOR:
David BARRON
Well Contractor (Individual) Name
Eng. Tectonics
Well Contractor Company Name
STREET ADDRESS 1720 VARGRAVE ST.
W-Salem N.C. 27107
City or Town State Zip Code
(336) 724-6994
Area code- Phone number

2. WELL INFORMATION:
SITE WELL ID #(if applicable) MW # 35
STATE WELL PERMIT#(if applicable)
DWQ or OTHER PERMIT #(if applicable)
WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐
Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐
Irrigation ☐ Other ☐ (list use)
DATE DRILLED 3-31
TIME COMPLETED 4-1 AM ☒ PM ☐

3. WELL LOCATION:
CITY: Thomasville COUNTY Davidson
1242 Old Hwy 29 27360-0024
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)
TOPOGRAPHIC / LAND SETTING:
☐ Slope ☐ Valley ☒ Flat ☐ Ridge ☐ Other
(check appropriate box)
LATITUDE 35 50 58.13561
LONGITUDE 80 11 05.49742
May be in degrees, minutes, seconds or in a decimal format
Latitude/longitude source: ☐ GPS ☐ Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY - is the name of the business where the well is located.
FACILITY ID #(if applicable)
NAME OF FACILITY Davidson Co. Landfill
STREET ADDRESS 1242 old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
CONTACT PERSON Charlie Brushwood
MAILING ADDRESS 1242 old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
(336) 242-2284
Area code - Phone number

5. WELL DETAILS:
a. TOTAL DEPTH: 18.0
b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒
c. WATER LEVEL Below Top of Casing: 7.93 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 3' FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.
e. YIELD (gpm): METHOD OF TEST
f. DISINFECTION: Type Amount
g. WATER ZONES (depth):
From To From To
From To From To
From To From To

6. CASING:

From	To	Ft.	Diameter	Thickness/ Weight	Material
+3	8.0		2"	Sch 40	PVC

7. GROUT:

From	To	Ft.	Material	Method
6.0	8.0		Bentonite	Tremie
0.0	6.0		Portland	Pump

8. SCREEN:

From	To	Ft.	Diameter	Slot Size	Material
8.0	18.0		2" in.	.010 in.	PVC
			in.	in.	
			in.	in.	

9. SAND/GRAVEL PACK:

From	To	Ft.	Size	Material
6.0	18.0		#3	SAND

10. DRILLING LOG

From	To	Formation Description

11. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

David Barron 4-11-08
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE
David BARRON
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days: Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 7/05

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2089

1. WELL CONTRACTOR:
David Barron
Well Contractor (Individual) Name
Eng. Tectonics
Well Contractor Company Name
STREET ADDRESS 1720 Vargrave St.
W-Salem N.C. 27107
City or Town State Zip Code
(336) 724-6994
Area code- Phone number

2. WELL INFORMATION:
SITE WELL ID #(if applicable) MW 3D
STATE WELL PERMIT#(if applicable)
DWQ or OTHER PERMIT #(if applicable)
WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐
Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐
Irrigation ☐ Other ☐ (list use)
DATE DRILLED 4-9
TIME COMPLETED 4-11 AM ☒ PM ☐

3. WELL LOCATION:
CITY: Thomasville COUNTY Davidson
1242 Old Hwy 29 27360-0024
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)
TOPOGRAPHIC / LAND SETTING:
☐ Slope ☐ Valley ☒ Flat ☐ Ridge ☐ Other
(check appropriate box)
LATITUDE 35 50 58.13562
LONGITUDE 80 11 05.4984
May be in degrees, minutes, seconds or in a decimal format
Latitude/longitude source: ☐ GPS ☐ Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.
FACILITY ID #(if applicable)
NAME OF FACILITY Davidson Co. Landfill
STREET ADDRESS 1242 Old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
CONTACT PERSON Charlie Brushwood
MAILING ADDRESS 1242 Old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
(336) 242-2284
Area code - Phone number

5. WELL DETAILS:
a. TOTAL DEPTH: 40.5
b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒
c. WATER LEVEL Below Top of Casing: 7.82 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 3' FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.
e. YIELD (gpm): METHOD OF TEST
f. DISINFECTION: Type Amount
g. WATER ZONES (depth):
From To From To
From To From To
From To From To

6. CASING:

From	To	Ft.	Diameter	Thickness/Weight	Material
+3	35.5		2"	Sch 40	PVC
0.0	24		4"	Sch 40	PVC

7. GROUT:

From	To	Ft.	Material	Method
31.5	33.5		Bentonite	Tremie
0.0	31.5		Portland	Pump

8. SCREEN:

From	To	Ft.	Diameter	Slot Size	Material
35.5	40.5		2" in.	.010 in.	PVC
			in.	in.	
			in.	in.	

9. SAND/GRAVEL PACK:

From	To	Ft.	Size	Material
38.5	40.5		#3	SAND

10. DRILLING LOG

From	To	Formation Description

11. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

David Barron 4-11-08
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE
David Barron
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days: Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 7/05

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2089

1. WELL CONTRACTOR:

David Barron
Well Contractor (individual) Name

Eng. Tectonics
Well Contractor Company Name

STREET ADDRESS 1720 Vargrave St.

W-Salem N.C. 27107
City or Town State Zip Code

(336) 724-6994
Area code- Phone number

2. WELL INFORMATION:

SITE WELL ID #(if applicable) MW4s

STATE WELL PERMIT#(if applicable)

DWQ or OTHER PERMIT #(if applicable)

WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐ Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐ Irrigation ☐ Other ☐ (list use)

DATE DRILLED 3-31

TIME COMPLETED 4-1 AM ☒ PM ☐

3. WELL LOCATION:

CITY: Thomasville COUNTY Davidson

1242 Old Hwy 29 27360-0024
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:
☐ Slope ☐ Valley ☒ Flat ☐ Ridge ☐ Other
(check appropriate box)

LATITUDE 35 50 58.29283
LONGITUDE 80 11 08.13518

May be in degrees, minutes, seconds or in a decimal format

Latitude/longitude source: ☐ GPS ☐ Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.

FACILITY ID #(if applicable)

NAME OF FACILITY Davidson Co. Landfill

STREET ADDRESS 1242 old Hwy 29

Thomasville N.C. 27360-0024
City or Town State Zip Code

CONTACT PERSON Charlie Brushwood

MAILING ADDRESS 1242 old Hwy 29

Thomasville N.C. 27360-0024
City or Town State Zip Code

(336) 242-2284
Area code - Phone number

5. WELL DETAILS:

a. TOTAL DEPTH: 21.0

b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒

c. WATER LEVEL Below Top of Casing: 18.6 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 3' FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): _____ METHOD OF TEST _____

f. DISINFECTION: Type _____ Amount _____

g. WATER ZONES (depth):

From	To	From	To

6. CASING:

From	To	Ft.	Diameter	Thickness/ Weight	Material
+3	11.0		2"	Sch 40	PVC

7. GROUT:

From	To	Ft.	Material	Method
7.0	9.0		Bentonite	Tremie
0.0	7.0		Portland	Pump

8. SCREEN:

From	To	Ft.	Diameter	Slot Size	Material
11.0	21.0		2" in.	.010 in.	PVC
			in.	in.	
			in.	in.	

9. SAND/GRAVEL PACK:

From	To	Ft.	Size	Material
9.0	21.0		#3	SAND

10. DRILLING LOG

From	To	Formation Description

11. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

David Barron 4-11-08
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

David Barron
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days; Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 7/05

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2089

1. WELL CONTRACTOR:
David Barron
Well Contractor (Individual) Name
Eng. Tectonics
Well Contractor Company Name
STREET ADDRESS 1720 Vargrave St.
W-Salem N.C. 27107
City or Town State Zip Code
(336) 724-6994
Area code- Phone number

2. WELL INFORMATION:
SITE WELL ID #(if applicable) MW 4D
STATE WELL PERMIT#(if applicable)
DWQ or OTHER PERMIT #(if applicable)
WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐
Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐
Irrigation ☐ Other ☐ (list use)
DATE DRILLED 4-9
TIME COMPLETED 4-11 AM ☒ PM ☐

3. WELL LOCATION:
CITY: Thomasville COUNTY Davidson
1242 Old Hwy 29 27360-0024
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)
TOPOGRAPHIC / LAND SETTING:
☐ Slope ☐ Valley ☒ Flat ☐ Ridge ☐ Other
(check appropriate box)
LATITUDE 35 50 58.29291
LONGITUDE 80 11 08.13521
May be in degrees, minutes, seconds or in a decimal format
Latitude/longitude source: ☐ GPS ☐ Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY - is the name of the business where the well is located.
FACILITY ID #(if applicable)
NAME OF FACILITY Davidson Co. Landfill
STREET ADDRESS 1242 Old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
CONTACT PERSON Charlie Brushwood
MAILING ADDRESS 1242 Old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
(336) 242-2284
Area code - Phone number

5. WELL DETAILS:
a. TOTAL DEPTH: 37.0
b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒
c. WATER LEVEL Below Top of Casing: 18.2 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 3' FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.
e. YIELD (gpm): METHOD OF TEST
f. DISINFECTION: Type Amount
g. WATER ZONES (depth):
From To From To
From To From To
From To From To

6. CASING:

	Depth		Diameter	Thickness/ Weight	Material
From +3	To 27.0	Ft.	2"	Sch 40	PVC
From 0.0	To 21.5	Ft.	4"	Sch 40	PVC
From	To	Ft.			

7. GROUT:

	Depth		Material	Method
From 28.0	To 30.0	Ft.	Bentonite	Tremie
From 0.0	To 28.0	Ft.	Portland	Pump
From	To	Ft.		

8. SCREEN:

	Depth		Diameter	Slot Size	Material
From 32.0	To 37.0	Ft.	2" in.	.010 in.	PVC
From	To	Ft.	in.	in.	
From	To	Ft.	in.	in.	

9. SAND/GRAVEL PACK:

	Depth		Size	Material
From 30.0	To 37.0	Ft.	#3	SAND
From	To	Ft.		
From	To	Ft.		

10. DRILLING LOG

From	To	Formation Description

11. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

David Barron 4-11-08
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE
David Barron
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days; Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 7/05

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2089

1. WELL CONTRACTOR:
David Barron
Well Contractor (Individual) Name
Eng. Tectonics
Well Contractor Company Name
STREET ADDRESS 1720 Vargrave St.
W-Salem N.C. 27107
City or Town State Zip Code
(336) 724-6994
Area code- Phone number

2. WELL INFORMATION:
SITE WELL ID #(if applicable) MW#5
STATE WELL PERMIT#(if applicable)
DWQ or OTHER PERMIT #(if applicable)
WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐
Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐
Irrigation ☐ Other ☐ (list use)
DATE DRILLED 4-1
TIME COMPLETED 4-8 AM ☒ PM ☐

3. WELL LOCATION:
CITY: Thomasville COUNTY Davidson
1242 Old Hwy 29 27360-0024
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)
TOPOGRAPHIC / LAND SETTING:
☐ Slope ☐ Valley ☒ Flat ☐ Ridge ☐ Other
(check appropriate box)
LATITUDE 35 50 55.0341
LONGITUDE 80 11 13.66395
May be in degrees, minutes, seconds or in a decimal format
Latitude/longitude source: ☐ GPS ☐ Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.
FACILITY ID #(if applicable)
NAME OF FACILITY Davidson Co. Landfill
STREET ADDRESS 1242 Old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
CONTACT PERSON Charlie Brushwood
MAILING ADDRESS 1242 Old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
(336) 242-2284
Area code - Phone number

5. WELL DETAILS:
a. TOTAL DEPTH: 38.0
b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒
c. WATER LEVEL Below Top of Casing: 27.47 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 3' FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.
e. YIELD (gpm): METHOD OF TEST
f. DISINFECTION: Type Amount
g. WATER ZONES (depth):
From To From To
From To From To
From To From To

6. CASING:

	Depth		Diameter	Thickness/ Weight	Material
From +3'	To 28	Ft.	2"	Sch 40	PVC
From	To	Ft.			
From	To	Ft.			

7. GROUT:

	Depth		Material	Method
From 24.0	To 26.0	Ft.	Bentonite	Tremie
From 0.0	To 24.0	Ft.	Portland	Pump
From	To	Ft.		

8. SCREEN:

	Depth		Diameter	Slot Size	Material
From 28.0	To 38.0	Ft.	2" in.	.010 in.	PVC
From	To	Ft.	in.	in.	
From	To	Ft.	in.	in.	

9. SAND/GRAVEL PACK:

	Depth		Size	Material
From 26.0	To 38.0	Ft.	#3	SAND
From	To	Ft.		
From	To	Ft.		

10. DRILLING LOG

From	To	Formation Description

11. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

David Barron 4-11-08
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE
David Barron
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days: Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 588.

Form GW-1b
Rev. 7/05

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2089

1. WELL CONTRACTOR:
David Barron
Well Contractor (Individual) Name
Eng. Tectonics
Well Contractor Company Name
STREET ADDRESS 1720 Vargrave St.
W-Salem N.C. 27107
City or Town State Zip Code
(336) 724-6994
Area code - Phone number

2. WELL INFORMATION:
SITE WELL ID #(if applicable) MW65
STATE WELL PERMIT#(if applicable)
DWQ or OTHER PERMIT #(if applicable)
WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐
Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐
Irrigation ☐ Other ☐ (list use)
DATE DRILLED 4-8
TIME COMPLETED 4-10 AM ☒ PM ☐

3. WELL LOCATION:
CITY: Thomasville COUNTY Davidson
1242 Old Hwy 29 27360-0024
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)
TOPOGRAPHIC / LAND SETTING:
☐ Slope ☐ Valley ☒ Flat ☐ Ridge ☐ Other
(check appropriate box)
LATITUDE 35 50 48.51500
LONGITUDE 80 11 06.89024
May be in degrees, minutes, seconds or in a decimal format
Latitude/longitude source: ☐ GPS ☐ Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY - is the name of the business where the well is located.
FACILITY ID #(if applicable)
NAME OF FACILITY Davidson Co. Landfill
STREET ADDRESS 1242 Old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
CONTACT PERSON Charlie Brushwood
MAILING ADDRESS 1242 Old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
(336) 242-2284
Area code - Phone number

5. WELL DETAILS:
a. TOTAL DEPTH: 40.0
b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒
c. WATER LEVEL Below Top of Casing: 31.9 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 3' FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.
e. YIELD (gpm): METHOD OF TEST
f. DISINFECTION: Type Amount
g. WATER ZONES (depth):
From To From To
From To From To
From To From To

6. CASING:

	Depth		Diameter	Thickness/ Weight	Material
From +3	To 30.0	Ft.	2"	Sch 40	PVC
From	To	Ft.			
From	To	Ft.			

7. GROUT:

	Depth		Material	Method
From 26.0	To 28.0	Ft.	Bentonite	Tremie
From 0.0	To 26.0	Ft.	Portland	Pump
From	To	Ft.		

8. SCREEN:

	Depth		Diameter	Slot Size	Material
From 30.0	To 40.0	Ft.	2" in.	.010 in.	PVC
From	To	Ft.	in.	in.	
From	To	Ft.	in.	in.	

9. SAND/GRAVEL PACK:

	Depth		Size	Material
From 28.0	To 40.0	Ft.	#3	SAND
From	To	Ft.		
From	To	Ft.		

10. DRILLING LOG

From	To	Formation Description

11. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

David Barron 4-11-08
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE
David Barron
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days: Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 7/05

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2089

1. WELL CONTRACTOR:
David Barron
Well Contractor (Individual) Name
Eng. Tectonics
Well Contractor Company Name
STREET ADDRESS 1720 Vargrave St.
W-Salem N.C. 27107
City or Town State Zip Code
(336) 724-6994
Area code - Phone number

2. WELL INFORMATION:
SITE WELL ID #(if applicable) MW 60
STATE WELL PERMIT#(if applicable)
DWQ or OTHER PERMIT #(if applicable)
WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐
Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐
Irrigation ☐ Other ☐ (list use)
DATE DRILLED 4-8
TIME COMPLETED 4-10 AM ☒ PM ☐

3. WELL LOCATION:
CITY: Thomasville COUNTY Davidson
1242 Old Hwy 29 27360-0024
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)
TOPOGRAPHIC / LAND SETTING:
☐ Slope ☐ Valley ☒ Flat ☐ Ridge ☐ Other
(check appropriate box)
LATITUDE 35 50 48.51500
LONGITUDE 80 11 06.89030
May be in degrees, minutes, seconds or in a decimal format
Latitude/longitude source: ☐ GPS ☐ Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.
FACILITY ID #(if applicable)
NAME OF FACILITY Davidson Co. Landfill
STREET ADDRESS 1242 Old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
CONTACT PERSON Charlie Brushwood
MAILING ADDRESS 1242 Old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
(336) 242-2284
Area code - Phone number

5. WELL DETAILS:
a. TOTAL DEPTH: 70.5
b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒
c. WATER LEVEL Below Top of Casing: 32.12 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 3' FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.
e. YIELD (gpm): METHOD OF TEST
f. DISINFECTION: Type Amount
g. WATER ZONES (depth):
From To From To
From To From To
From To From To

6. CASING:

From	To	Depth	Diameter	Thickness/Weight	Material
+3.0	65.5	Ft.	2"	Sch 40	PVC
0.0	51.0	Ft.	4"	Sch 40	PVC
		Ft.			

7. GROUT:

From	To	Depth	Material	Method
61.5	63.5	Ft.	Bentonite	Tremie
		Ft.	Portland	Pump
		Ft.		

8. SCREEN:

From	To	Depth	Diameter	Slot Size	Material
65.5	70.5	Ft.	2" in.	.010 in.	PVC
		Ft.	in.	in.	
		Ft.	in.	in.	

9. SAND/GRAVEL PACK:

From	To	Depth	Size	Material
63.5	70.5	Ft.	#3	SAND
		Ft.		
		Ft.		

10. DRILLING LOG

From	To	Formation Description

11. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

David Barron 4-11-08
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE
David Barron
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days: Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 7/05

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2089

1. WELL CONTRACTOR:
David Barron
Well Contractor (Individual) Name
Eng. Tectonics
Well Contractor Company Name
STREET ADDRESS 1720 Vargrave St.
W-Salem N.C. 27107
City or Town State Zip Code
(336) 724-6994
Area code- Phone number

2. WELL INFORMATION:
SITE WELL ID #(if applicable) MW #7
STATE WELL PERMIT#(if applicable)
DWQ or OTHER PERMIT #(if applicable)
WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐
Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐
Irrigation ☐ Other ☐ (list use)
DATE DRILLED 4-4-08
TIME COMPLETED 4-8-08 AM ☒ PM ☐

3. WELL LOCATION:
CITY: Thomasville COUNTY Davidson
1242 Old Hwy 29 27360-0024
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)
TOPOGRAPHIC / LAND SETTING:
☐ Slope ☐ Valley ☒ Flat ☐ Ridge ☐ Other
(check appropriate box)
LATITUDE 35 50 48.6102
LONGITUDE 80 11 04.88235
May be in degrees, minutes, seconds or in a decimal format
Latitude/longitude source: ☐ GPS ☐ Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.
FACILITY ID #(if applicable)
NAME OF FACILITY Davidson Co. Landfill
STREET ADDRESS 1242 Old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
CONTACT PERSON Charlie Brushwood
MAILING ADDRESS 1242 Old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
(336) 242-2284
Area code - Phone number

5. WELL DETAILS:
a. TOTAL DEPTH: 37'-4"
b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒
c. WATER LEVEL Below Top of Casing: 28'.6 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 3' FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.
e. YIELD (gpm): METHOD OF TEST
f. DISINFECTION: Type Amount
g. WATER ZONES (depth):
From To From To
From To From To
From To From To

6. CASING:

From	To	Depth Ft.	Diameter	Thickness/ Weight	Material
+3	37.4		2"	Sch 40	PVC

7. GROUT:

From	To	Depth Ft.	Material	Method
23.4	25.4		Bentonite	Tremie
0.0	23.4		Portland	Pump

8. SCREEN:

From	To	Depth Ft.	Diameter in.	Slot Size in.	Material
[redacted]	37.4		2"	.010	PVC
27.4					

9. SAND/GRAVEL PACK:

From	To	Depth Ft.	Size	Material
[redacted]	37.4		#3	SAND
25.4				

10. DRILLING LOG

From	To	Formation Description

11. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

David Barron 4-11-08
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE
David Barron
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days: Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 7/05

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2089

1. WELL CONTRACTOR:
David Barron
Well Contractor (Individual) Name
Eng. Tectonics
Well Contractor Company Name
STREET ADDRESS 1720 Vargrave St.
W-Salem N.C. 27107
City or Town State Zip Code
(336) 724-6994
Area code - Phone number

2. WELL INFORMATION:
SITE WELL ID #(if applicable) MW #8
STATE WELL PERMIT#(if applicable)
DWQ or OTHER PERMIT #(if applicable)
WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐
Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐
Irrigation ☐ Other ☐ (list use)
DATE DRILLED 4-4-08
TIME COMPLETED 4-9-08 AM ☒ PM ☐

3. WELL LOCATION:
CITY: Thomasville COUNTY Davidson
1242 Old Hwy 29 27360-0024
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)
TOPOGRAPHIC / LAND SETTING:
☐ Slope ☐ Valley ☒ Flat ☐ Ridge ☐ Other
(check appropriate box)
LATITUDE 35 50 50.57123
LONGITUDE 80 11 02.42828
May be in degrees, minutes, seconds or in a decimal format
Latitude/longitude source: ☐ GPS ☐ Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY - is the name of the business where the well is located.
FACILITY ID #(if applicable)
NAME OF FACILITY Davidson Co. Landfill
STREET ADDRESS 1242 Old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
CONTACT PERSON Charlie Brushwood
MAILING ADDRESS 1242 Old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
(336) 242-2284
Area code - Phone number

5. WELL DETAILS:
a. TOTAL DEPTH: 58'-6"
b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒
c. WATER LEVEL Below Top of Casing: 48.49 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 3' FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.
e. YIELD (gpm): METHOD OF TEST
f. DISINFECTION: Type Amount
g. WATER ZONES (depth):
From To From To
From To From To
From To From To

6. CASING:

	Depth		Diameter	Thickness/ Weight	Material
From +3.0	To 48.6	Ft.	2"	Sch 40	PVC
From	To	Ft.			
From	To	Ft.			

7. GROUT:

	Depth		Material	Method
From 44.6	To 46.6	Ft.	Bentonite	Tremie
From 0.0	To 44.6	Ft.	Portland	Pump
From	To	Ft.		

8. SCREEN:

	Depth		Diameter	Slot Size	Material
From 48.6	To 58.6	Ft.	2" in.	.010 in.	PVC
From	To	Ft.	in.	in.	
From	To	Ft.	in.	in.	

9. SAND/GRAVEL PACK:

	Depth		Size	Material
From 46.6	To 58.6	Ft.	#3	SAND
From	To	Ft.		
From	To	Ft.		

10. DRILLING LOG

From	To	Formation Description

11. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

David Barron 4-11-08
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE
David Barron
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days: Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 7/05

REC'D AUG 28 2008

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2089

1. WELL CONTRACTOR:
David BARRON
Well Contractor (Individual) Name
Eng. Tectonics
Well Contractor Company Name
STREET ADDRESS 1720 Vargrave ST.
W-Salem N.C. 27107
City or Town State Zip Code
(336) 724-6994
Area code- Phone number

2. WELL INFORMATION:
SITE WELL ID #(if applicable) MW+9
WELL CONSTRUCTION PERMIT#(if applicable)
OTHER ASSOCIATED PERMIT #(if applicable)

3. WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐ Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐ Irrigation ☐ Other ☐ (list use)
DATE DRILLED 8-14-08
TIME COMPLETED 8-19-08 AM ☒ PM ☐

4. WELL LOCATION:
CITY: Thomasville COUNTY Davidson
1160 old Hwy 29 27360-0024
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)
TOPOGRAPHIC / LAND SETTING:
☐ Slope ☐ Valley ☐ Flat ☐ Ridge ☐ Other
(check appropriate box)
LATITUDE
LONGITUDE
May be in degrees, minutes, seconds or in a decimal format
Latitude/longitude source: ☐ GPS ☐ Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

5. FACILITY- is the name of the business where the well is located.
FACILITY ID #(if applicable)
NAME OF FACILITY Davidson Co. Landfill
STREET ADDRESS 1160 old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
CONTACT PERSON Charlie Brushwood
MAILING ADDRESS 1242 old Hwy 29
Thomasville N.C. 27360-0024
City or Town State Zip Code
(336) 242-2284
Area code - Phone number

6. WELL DETAILS:
a. TOTAL DEPTH: 30.50
b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒
c. WATER LEVEL Below Top of Casing: 20.0 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS Flush FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.
e. YIELD (gpm): METHOD OF TEST
f. DISINFECTION: Type Amount
g. WATER ZONES (depth):
From 20.5 To 30.5 From To
From To From To
From To From To

7. CASING:

From	To	Depth Ft.	Diameter	Thickness/ Weight	Material
0	20.5		2"	sch 40	PVC

8. GROUT:

From	To	Depth Ft.	Material	Method
0	15.5		Portland	Tremie
15.5	18.5		Bentonite	Tremie

9. SCREEN:

From	To	Depth Ft.	Diameter	Slot Size	Material
20.5	30.5		2" in.	.010 in.	PVC
			in.	in.	
			in.	in.	

10. SAND/GRAVEL PACK:

From	To	Depth Ft.	Size	Material
18.5	30.5		#3	Sand

11. DRILLING LOG

From	To	Formation Description

12. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

David Barron 8-20-08
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE
DAVID BARRON
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days. Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 3/07

Appendix B

Field Data Sheets

RICHARDSON SMITH GARDNER & ASSOCIATES
ENGINEERING & GEOLOGICAL SERVICES

Groundwater Monitoring Well Inspection Checklist

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVIDSON (P.2) **Date:** 2/24/09

Well ID: MW-1 **Initials:** DM

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ items addressed or to be addressed:

o.k.

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).		✓
G. No evidence of tampering is present.	✓	
H. Lock operates properly.	✓	
I.		

Comments/ items addressed or to be addressed:

well numbers applied to steel casing

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

o.k.

RICHARDSON SMITH GARDNER & ASSOCIATES
ENGINEERING & GEOLOGICAL SERVICES

Groundwater Monitoring Well Inspection Checklist

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVIDSON (P.2) **Date:** 2/24/09

Well ID: MW-2 **Initials:** DM

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ items addressed or to be addressed:

o.k.

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).		✓
G. No evidence of tampering is present.	✓	
H. Lock operates properly.		✓
I.		

Comments/ items addressed or to be addressed:

well numbers applied to steel casing
well lock replaced

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

ok.

RICHARDSON SMITH GARDNER & ASSOCIATES
ENGINEERING & GEOLOGICAL SERVICES

Groundwater Monitoring Well Inspection Checklist

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVIDSON (P.2) **Date:** ~~8~~/24/09 (2/24/09)

Well ID: MW-35 **Initials:**

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ items addressed or to be addressed:

ok

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).		✓
G. No evidence of tampering is present.	✓	
H. Lock operates properly.	✓	
I.		

Comments/ items addressed or to be addressed:

well numbers replaced on steel casing

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

ok.

RICHARDSON SMITH GARDNER & ASSOCIATES
ENGINEERING & GEOLOGICAL SERVICES

Groundwater Monitoring Well Inspection Checklist

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: Davidson (Pa) **Date:** 2/24/09
Well ID: MW-3d **Initials:** DM

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ items addressed or to be addressed:

o.k.

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).		✓
G. No evidence of tampering is present.	✓	
H. Lock operates properly.	✓	
I.		

Comments/ items addressed or to be addressed:

well numbers applied to steel casing

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

o.k.

RICHARDSON SMITH GARDNER & ASSOCIATES
ENGINEERING & GEOLOGICAL SERVICES

Groundwater Monitoring Well Inspection Checklist

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVIDSON (P.2) **Date:** 2/24/09

Well ID: MW-45 **Initials:** DM

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ items addressed or to be addressed:

o.k.

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).		✓
G. No evidence of tampering is present.	✓	
H. Lock operates properly.	✓	
I.		

Comments/ items addressed or to be addressed:

well numbers applied to steel casing

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

o.k.

RICHARDSON SMITH GARDNER & ASSOCIATES
ENGINEERING & GEOLOGICAL SERVICES

Groundwater Monitoring Well Inspection Checklist

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVIDSON (P.2) **Date:** 2/24/09

Well ID: MW-4d **Initials:** DM

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ items addressed or to be addressed:

ok.

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).		✓
G. No evidence of tampering is present.	✓	
H. Lock operates properly.	✓	
I.		

Comments/ items addressed or to be addressed:

well numbers applied to steel casing

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

o.k.

RICHARDSON SMITH GARDNER & ASSOCIATES
ENGINEERING & GEOLOGICAL SERVICES

Groundwater Monitoring Well Inspection Checklist

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVIDSON (P.2) **Date:** 2/24/09

Well ID: MW-5 **Initials:** DM

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ items addressed or to be addressed:

o.k.

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).		✓
G. No evidence of tampering is present.	✓	
H. Lock operates properly.	✓	
I.		

Comments/ items addressed or to be addressed:

well numbers applied to steel casing

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

o.k.

RICHARDSON SMITH GARDNER & ASSOCIATES
ENGINEERING & GEOLOGICAL SERVICES

Groundwater Monitoring Well Inspection Checklist

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVIDSON (P. 2) **Date:** 2/24/09

Well ID: MW 6 S **Initials:** DM

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ items addressed or to be addressed:

o.k.

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).		✓
G. No evidence of tampering is present.	✓	
H. Lock operates properly.		✓
I.		

Comments/ items addressed or to be addressed:

well numbers applied to steel casing
well lock replaced

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

o.k.

RICHARDSON SMITH GARDNER & ASSOCIATES
ENGINEERING & GEOLOGICAL SERVICES

Groundwater Monitoring Well Inspection Checklist

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVIDSON (P-2) **Date:** 2/24/09

Well ID: MW-6d **Initials:** DM

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ items addressed or to be addressed:

o.k.

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).		✓
G. No evidence of tampering is present.	✓	
H. Lock operates properly.		✓
I.		

Comments/ items addressed or to be addressed:

well numbers applied to steel casing

well lock replaced

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

o.k.

RICHARDSON SMITH GARDNER & ASSOCIATES
ENGINEERING & GEOLOGICAL SERVICES

Groundwater Monitoring Well Inspection Checklist

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVIDSON (P.2) **Date:** 2/24/09

Well ID: MW-7 **Initials:** DM

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ items addressed or to be addressed:

o.k.

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).		✓
G. No evidence of tampering is present.	✓	
H. Lock operates properly.	✓	
I.		

Comments/ items addressed or to be addressed:

well numbers applied to steel casing

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.	✓	

Comments/ items addressed or to be addressed:

o.k.

RICHARDSON SMITH GARDNER & ASSOCIATES
ENGINEERING & GEOLOGICAL SERVICES

Groundwater Monitoring Well Inspection Checklist

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVIDSON (P. 2) **Date:** 2/23/09

Well ID: MW-8 **Initials:** DM

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.	✓	

Comments/ items addressed or to be addressed:

O.K.

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).		✓
G. No evidence of tampering is present.	✓	
H. Lock operates properly.	✓	
I.		

Comments/ items addressed or to be addressed:

Well numbers applied to steel casing

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

O.K.

RICHARDSON SMITH GARDNER & ASSOCIATES
ENGINEERING & GEOLOGICAL SERVICES

Groundwater Monitoring Well Inspection Checklist

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVIDSON (P.2) **Date:** 2/24/09

Well ID: MW-9 **Initials:** DM

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ items addressed or to be addressed:

o.k.

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.		
B. Steel case is present and upright.		
C. Steel case is not movable and cemented in.		
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.		
E. Well tag is present with pertinent information.	NA	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).		
G. No evidence of tampering is present.		
H. Lock operates properly.		
I.		

Comments/ items addressed or to be addressed:

Well is flush mount

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

o.k.

RICHARDSON SMITH GARDNER & ASSOCIATES
ENGINEERING & GEOLOGICAL SERVICES

Groundwater Monitoring Well Inspection Checklist

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVIDSON (P.2) **Date:** 4/9/09

Well ID: MW-8 **Initials:** DM

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ items addressed or to be addressed:

o.k.

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).	✓	
G. No evidence of tampering is present.	✓	
H. Lock operates properly.		✓
I.		

Comments/ items addressed or to be addressed:

well lock replaced

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

ok.

RICHARDSON SMITH GARDNER & ASSOCIATES
ENGINEERING & GEOLOGICAL SERVICES

Groundwater Monitoring Well Inspection Checklist

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVIDSON (E.Z.) **Date:** 4/9/09

Well ID: MW-7 **Initials:** DM

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ items addressed or to be addressed:

o.k.

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).	✓	
G. No evidence of tampering is present.	✓	
H. Lock operates properly.		✓
I.		

Comments/ items addressed or to be addressed:

well lock replaced

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

o.k.

RICHARDSON SMITH GARDNER & ASSOCIATES
ENGINEERING & GEOLOGICAL SERVICES

Groundwater Monitoring Well Inspection Checklist

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVIDSON (P.2) **Date:** 4/9/09

Well ID: MW-6S **Initials:** DM

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ items addressed or to be addressed:

ok

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).	✓	
G. No evidence of tampering is present.	✓	
H. Lock operates properly.	✓	
I.		

Comments/ items addressed or to be addressed:

ok.

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

o.k

RICHARDSON SMITH GARDNER & ASSOCIATES
ENGINEERING & GEOLOGICAL SERVICES

Groundwater Monitoring Well Inspection Checklist

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVIDSON (P.2) **Date:** 4/9/09

Well ID: MW-6d **Initials:** DM

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ items addressed or to be addressed:

o.k.

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).	✓	
G. No evidence of tampering is present.	✓	
H. Lock operates properly.	✓	
I.		

Comments/ items addressed or to be addressed:

o.k.

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

o.k.

RICHARDSON SMITH GARDNER & ASSOCIATES
ENGINEERING & GEOLOGICAL SERVICES

Groundwater Monitoring Well Inspection Checklist

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVIDSON (P.2) **Date:** 4/9/09

Well ID: MW-5 **Initials:** DM

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ items addressed or to be addressed:

ok.

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).	✓	
G. No evidence of tampering is present.	✓	
H. Lock operates properly.	✓	
I.		

Comments/ items addressed or to be addressed:

o.k.

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

O.K.

RICHARDSON SMITH GARDNER & ASSOCIATES
ENGINEERING & GEOLOGICAL SERVICES

Groundwater Monitoring Well Inspection Checklist

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVIDSON (P.2) **Date:** 4/9/09

Well ID: MW-9 **Initials:** DM

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ items addressed or to be addressed:

ok.

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.		
B. Steel case is present and upright.		
C. Steel case is not movable and cemented in.		
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.		
E. Well tag is present with pertinent information.		
F. Well numbers are prominently displayed (Reflective address numbers, etc.).		
G. No evidence of tampering is present.		
H. Lock operates properly.		
I.		

NA

Comments/ items addressed or to be addressed:

Well is flush mount

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

ok.

RICHARDSON SMITH GARDNER & ASSOCIATES
ENGINEERING & GEOLOGICAL SERVICES

Groundwater Monitoring Well Inspection Checklist

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVIDSON (P. 2) **Date:** 4/9/09

Well ID: MW-4S **Initials:** DM

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ items addressed or to be addressed:

o.k.

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).	✓	
G. No evidence of tampering is present.	✓	
H. Lock operates properly.		✓
I.		

Comments/ items addressed or to be addressed:

well lock replaced

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

O.K.

RICHARDSON SMITH GARDNER & ASSOCIATES
ENGINEERING & GEOLOGICAL SERVICES

Groundwater Monitoring Well Inspection Checklist

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVIDSON (P,2) **Date:** 4/9/09

Well ID: MW-4d **Initials:** DM

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ items addressed or to be addressed:

o.K.

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).	✓	
G. No evidence of tampering is present.	✓	
H. Lock operates properly.		✓
I.		

Comments/ items addressed or to be addressed:

well lock replaced

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

ok

RICHARDSON SMITH GARDNER & ASSOCIATES
ENGINEERING & GEOLOGICAL SERVICES

Groundwater Monitoring Well Inspection Checklist

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVIDSON (P.2) **Date:** 4/9/09

Well ID: MW-35 **Initials:** DM

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ items addressed or to be addressed:

o.k.

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).	✓	
G. No evidence of tampering is present.	✓	
H. Lock operates properly.		✓
I.		

Comments/ items addressed or to be addressed:

well lock replaced

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

o.k.

RICHARDSON SMITH GARDNER & ASSOCIATES
ENGINEERING & GEOLOGICAL SERVICES

Groundwater Monitoring Well Inspection Checklist

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVIDSON (P.2) **Date:** 4/9/09

Well ID: MW-3d **Initials:** DM

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ items addressed or to be addressed:

o.k.

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).	✓	
G. No evidence of tampering is present.	✓	
H. Lock operates properly.		✓
I.		

Comments/ items addressed or to be addressed:

well lock replaced

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

ok

RICHARDSON SMITH GARDNER & ASSOCIATES
ENGINEERING & GEOLOGICAL SERVICES

Groundwater Monitoring Well Inspection Checklist

This checklist is provided to inform our clients about the health and maintenance of their groundwater monitoring wells. This checklist provides no information pertaining to groundwater quality, but focuses on the physical characteristics of the well and its vicinity.

Site: DAVIDSON (P.2) **Date:** 4/9/09

Well ID: MW-2 **Initials:** DM

Please mark the aproprate box for the following areas of concern. If you answer NO, please explain in the comment box.

1. Well Vicinity	YES	NO
A. Well is assessable and surrounding area is safe for employees.	✓	
B. Vicinity is free of potential contaminants.	✓	
C. Dead trees, etc. not in danger of falling and damaging wells.	✓	
D. Well is in the same location as on field maps.	✓	
E.		

Comments/ items addressed or to be addressed:

o.k.

2. Concrete Apron and Steel Case	YES	NO
A. Concrete apron is present and in good condition.	✓	
B. Steel case is present and upright.	✓	
C. Steel case is not movable and cemented in.	✓	
D. Steel case lid opens and closes correctly with no gaps. Lock can be easily applied.	✓	
E. Well tag is present with pertinent information.	✓	
F. Well numbers are prominently displayed (Reflective address numbers, etc.).	✓	
G. No evidence of tampering is present.	✓	
H. Lock operates properly.	✓	
I.		

Comments/ items addressed or to be addressed:

o.k.

3. PVC Riser	YES	NO
A. Monitoring cap is present and provides a tight seal.	✓	
B. Riser is of appropriate height (has not been cut off too low within the steel case).	✓	
C. Riser is not loose/ easily moved.	✓	
D. Riser does not appear cracked, broken, or brittle.	✓	
E. No visual sign of external contamination entering well through riser.	✓	
F.		

Comments/ items addressed or to be addressed:

o.k.

Appendix C

Laboratory Analytical Report

Environment 1, Incorporated

REC'D OCT 02 2008

Drinking Water ID: 37715
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

ID#: 6059

DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH ,NC 27603

DATE COLLECTED: 08/26/08
DATE REPORTED : 09/30/08

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-1	MW-2	MW-3S	MW-3D	MW-4S	Analysis Date	Analyst	Method Code
Antimony, ug/l	0.08	6.0	Missing	0.5 J	0.1 J	--- U	Missing	09/02/08	LFJ	EPA200.8
Arsenic, ug/l	0.07	10.0	Missing	2.2 J	0.3 J	0.7 J	Missing	09/02/08	LFJ	EPA200.8
Barium, ug/l	0.11	100.0	Missing	113				09/05/08	LFJ	EPA200.8
Barium, ug/l	0.11	100.0			43.7 J	25.2 J	Missing	09/02/08	LFJ	EPA200.8
Beryllium, ug/l	0.06	1.0	Missing	0.4 J	--- U	--- U	Missing	09/02/08	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	Missing	0.3 J	0.5 J	0.5 J	Missing	09/03/08	LFJ	EPA200.8
Cobalt, ug/l	0.03	10.0	Missing	39				09/03/08	LFJ	EPA200.8
Cobalt, ug/l	0.03	10.0			5.2 J	0.2 J	Missing	09/02/08	LFJ	EPA200.8
Copper, ug/l	0.05	10.0	Missing	67				09/05/08	LFJ	EPA200.8
Copper, ug/l	0.05	10.0			4.0 J	1.0 J	Missing	09/02/08	LFJ	EPA200.8
Total Chromium, ug/l	0.11	10.0	Missing	65				09/05/08	LFJ	EPA200.8
Total Chromium, ug/l	0.11	10.0			5.1 J	--- U	Missing	09/02/08	LFJ	EPA200.8
Lead, ug/l	0.04	10.0	Missing	11	0.8 J	0.2 J	Missing	09/03/08	LFJ	EPA200.8
Nickel, ug/l	0.06	50.0	Missing	9.7 J	3.7 J	1.1 J	Missing	09/02/08	LFJ	EPA200.8
Selenium, ug/l	0.14	10.0	Missing	0.5 J	0.5 J	0.3 J	Missing	09/06/38	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	Missing	0.3 J	--- U	--- U	Missing	09/05/08	LFJ	EPA200.8
Thallium, ug/l	0.04	5.0	Missing	0.1 J	--- U	--- U	Missing	09/03/08	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	Missing	84				09/05/08	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0			17.3 J	3.6 J	Missing	09/02/08	LFJ	EPA200.8
Zinc, ug/l	0.04	10.0	Missing	43	23	12	Missing	09/05/08	LFJ	EPA200.8

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

ID#: 6059

DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH ,NC 27603

DATE COLLECTED: 08/26/08
DATE REPORTED : 09/30/08

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-4D	MW-5	MW-6S	MW-6D	MW-7	Analysis Date	Analyst	Method Code
Antimony, ug/l	0.08	6.0	--- U	--- U	--- U	--- U	Missing	09/02/08	LFJ	EPA200.8
Arsenic, ug/l	0.07	10.0	0.5 J	0.3 J	3.8 J	5.0 J	Missing	09/02/08	LFJ	EPA200.8
Barium, ug/l	0.11	100.0	43.5 J	10.5 J				09/02/08	LFJ	EPA200.8
Barium, ug/l	0.11	100.0			859	296	Missing	09/05/08	LFJ	EPA200.8
Beryllium, ug/l	0.06	1.0	--- U	--- U	0.8 J	0.5 J	Missing	09/02/08	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.4 J	0.3 J	0.4 J	0.6 J	Missing	09/03/08	LFJ	EPA200.8
Cobalt, ug/l	0.03	10.0	0.3 J	1.2 J				09/02/08	LFJ	EPA200.8
Cobalt, ug/l	0.03	10.0			82	33	Missing	09/05/08	LFJ	EPA200.8
Copper, ug/l	0.05	10.0	0.9 J	6.6 J				09/02/08	LFJ	EPA200.8
Copper, ug/l	0.05	10.0			515	157	Missing	09/05/08	LFJ	EPA200.8
Total Chromium, ug/l	0.11	10.0	--- U	1.8 J				09/02/08	LFJ	EPA200.8
Total Chromium, ug/l	0.11	10.0			132	69	Missing	09/05/08	LFJ	EPA200.8
Lead, ug/l	0.04	10.0	0.1 J	0.8 J	15.9	10	Missing	09/03/08	LFJ	EPA200.8
Nickel, ug/l	0.06	50.0	1.0 J	2.0 J				09/02/08	LFJ	EPA200.8
Nickel, ug/l	0.06	50.0			92	34.6 J	Missing	09/05/08	LFJ	EPA200.8
Selenium, ug/l	0.14	10.0	--- U	--- U	0.9 J	2.3 J	Missing	09/06/38	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	--- U	--- U	0.7 J	0.1 J	Missing	09/05/08	LFJ	EPA200.8
Thallium, ug/l	0.04	5.0	--- U	--- U	0.4 J	0.1 J	Missing	09/03/08	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	9.8 J	7.9 J				09/02/08	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0			262	172	Missing	09/05/08	LFJ	EPA200.8
Zinc, ug/l	0.04	10.0	9.0 J	8.1 J	362	109	Missing	09/05/08	LFJ	EPA200.8

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

ID#: 6059

DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH ,NC 27603

DATE COLLECTED: 08/26/08
DATE REPORTED : 09/30/08

REVIEWED BY: _____

PARAMETERS	MDL	SWSL	MW-8	MW-9	Analysis Date	Analyst	Method Code
Antimony, ug/l	0.08	6.0	--- U		09/02/08	LFJ	EPA200.8
Antimony, ug/l	0.08	6.0		--- U	09/15/08	LFJ	EPA200.8
Arsenic, ug/l	0.07	10.0	0.7 J		09/02/08	LFJ	EPA200.8
Arsenic, ug/l	0.07	10.0		3.0 J	09/15/08	LFJ	EPA200.8
Barium, ug/l	0.11	100.0	21.1 J		09/02/08	LFJ	EPA200.8
Barium, ug/l	0.11	100.0		270	09/15/08	LFJ	EPA200.8
Beryllium, ug/l	0.06	1.0	--- U		09/02/08	LFJ	EPA200.8
Beryllium, ug/l	0.06	1.0		1.0	09/15/08	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.1 J		09/03/08	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0		0.4 J	09/15/08	LFJ	EPA200.8
Cobalt, ug/l	0.03	10.0	2.7 J		09/02/08	LFJ	EPA200.8
Cobalt, ug/l	0.03	10.0		36	09/15/08	LFJ	EPA200.8
Copper, ug/l	0.05	10.0	12		09/05/08	LFJ	EPA200.8
Copper, ug/l	0.05	10.0		123	09/15/08	LFJ	EPA200.8
Total Chromium, ug/l	0.11	10.0	18		09/05/08	LFJ	EPA200.8
Total Chromium, ug/l	0.11	10.0		44	09/15/08	LFJ	EPA200.8
Lead, ug/l	0.04	10.0	2.4 J		09/03/08	LFJ	EPA200.8
Lead, ug/l	0.04	10.0		9.5 J	09/15/08	LFJ	EPA200.8
Nickel, ug/l	0.06	50.0	9.6 J		09/02/08	LFJ	EPA200.8
Nickel, ug/l	0.06	50.0		7.3 J	09/15/08	LFJ	EPA200.8
Selenium, ug/l	0.14	10.0	--- U		09/06/38	LFJ	EPA200.8
Selenium, ug/l	0.14	10.0		1.4 J	09/15/08	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	--- U		09/05/08	LFJ	EPA200.8
Silver, ug/l	0.04	10.0		0.3 J	09/15/08	LFJ	EPA200.8
Thallium, ug/l	0.04	5.0	--- U		09/03/08	LFJ	EPA200.8
Thallium, ug/l	0.04	5.0		0.2 J	09/15/08	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	15.7 J		09/05/08	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0		179	09/15/08	LFJ	EPA200.8
Zinc, ug/l	0.04	10.0	11		09/05/08	LFJ	EPA200.8
Zinc, ug/l	0.04	10.0		59	09/15/08	LFJ	EPA200.8

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

CLIENT: DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH, NC 27603

CLIENT ID: 6059

ANALYST: MAO
DATE COLLECTED: 08/26/08
DATE ANALYZED: 09/09/08
DATE REPORTED: 09/30/08

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	MW-2	MW-3S	MW-3D	MW-4D	MW-5
1. Chloromethane	0.18	1.0	--- U	--- U	--- U	--- U	--- U
2. Vinyl Chloride	0.34	1.0	--- U	--- U	--- U	--- U	--- U
3. Bromomethane	0.26	10.0	--- U	--- U	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U	--- U	--- U	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
7. Acetone	1.21	100.0	2.40 J	2.40 J	3.50 J	2.70 J	2.10 J
8. Iodomethane	0.12	10.0	--- U	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U	--- U	--- U	--- U
10. Methylene Chloride	0.14	1.0	--- U	--- U	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U	--- U	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
15. 2-Butanone	0.85	100.0	--- U	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.13	5.0	0.30 J	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.13	1.0	--- U	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.13	1.0	--- U	--- U	0.60 J	--- U	--- U
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U	--- U	--- U	--- U

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

CLIENT: DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH, NC 27603

CLIENT ID: 6059

ANALYST: MAO
DATE COLLECTED: 08/26/08
DATE ANALYZED: 09/09/08
DATE REPORTED: 09/30/08

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	MW-6S	MW-6D	MW-8	MW-9	Trip Blank
1. Chloromethane	0.18	1.0	--- U	0.50 J	--- U	--- U	--- U
2. Vinyl Chloride	0.34	1.0	--- U	0.40 J	--- U	--- U	--- U
3. Bromomethane	0.26	10.0	--- U	--- U	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U	--- U	--- U	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
7. Acetone	1.21	100.0	1.90 J	3.80 J	2.10 J	2.90 J	1.40 J
8. Iodomethane	0.12	10.0	--- U	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	5.40 J	--- U	--- U	--- U
10. Methylene Chloride	0.14	1.0	--- U	--- U	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U	--- U	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
15. 2-Butanone	0.85	100.0	--- U	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.13	1.0	--- U	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.13	1.0	--- U	--- U	--- U	--- U	--- U
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U	--- U	--- U	--- U

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Inc.
P.O. Box 7085, 114 Oakmont Dr.
Greenville, NC 27858

Phone (252) 756-6208 • Fax (252) 756-0633

CHAIN OF CUSTODY RECORD

CLIENT: 6059 **Week: 40**

DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH NC 27603

(919) 828-0577

DISINFECTION: ☐ CHLORINE ☐ UV ☐ NONE ☐ _____

CHLORINE NEUTRALIZED AT COLLECTION

pH CHECK (LAB): 12 12 12 12

CONTAINER TYPE, P/G: P G G G

CHEMICAL PRESERVATION: A E E E

PARAMETERS: A - NONE; B - HNO_3; C - H_2SO_4; D - NAOH; E - HCL; F - ZINC ACETATE; G - NA THIOSULFATE

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Metals	EPA 8260B	8260 Dup. 1	8260 Dup. 2
~~MW-1~~	8/26				~~4~~				
MW-2		8:05			3				
MW-3S		9:35			3				
MW-4D		10:10			3				
MW-5		11:00			3				
MW-6S		11:20			4				
MW-6D		11:30			3				
~~MW-7~~					~~3~~				
MW-8		12:00			3				
MW-9		10:30			3				
MW-3D	↓	9:55			3				

CLASSIFICATION:
- ☐ WASTEWATER (NPDES)
- ☐ DRINKING WATER
- ☐ DWQ/GW
- ☒ SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY: (Y) N

SAMPLES COLLECTED BY: (Please Print) CLARK WIPFIELD

SAMPLES RECEIVED IN LAB AT 0.9 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
Clark Wipfield	8/26/08 1:37	[signature]	8/27 10:14
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:
MW-1 Dry / Not Sampled
MW-7 Dry / Not Sampled
MW-4S Dry / Not Sampled

Instructions for completing this form are on the reverse side.

Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested.

№ 168572

Environment 1, Inc.
P.O. Box 7085, 114 Oakmont Dr.
Greenville, NC 27858

Phone (252) 756-6208 • Fax (252) 756-0633

CHAIN OF CUSTODY RECORD

CLIENT: 6059 **Week: 40**

DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH NC 27603

(919) 828-0577

DISINFECTION
- ☐ CHLORINE
- ☐ UV
- ☐ NONE
- ☐ _____

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Metals	EPA 8260B	8260 Dup. 1	8260 Dup. 2
CHLORINE NEUTRALIZED AT COLLECTION									
pH CHECK (LAB)						L2	L2	L2	L2
CONTAINER TYPE, P/G						P	G	G	G
CHEMICAL PRESERVATION						A	E	E	E
~~MW-4S~~					~~3~~				
TRIP BLANK	8/26	—						☐	☐

PARAMETERS

A - NONE D - NAOH
B - HNO_3 E - HCL
C - H_2SO_4 F - ZINC ACETATE
G - NA THIOSULFATE

CLASSIFICATION:
- ☐ WASTEWATER (NPDES)
- ☐ DRINKING WATER
- ☐ DWQ/GW
- ☒ SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY
Y N

SAMPLES COLLECTED BY: (Please Print)
CLARK WIPFIELD

SAMPLES RECEIVED IN LAB AT 0.9 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
[signature]	8/26/07 1:38	[signature]	8/27 10:14
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS: MW-4S Dry / Not Sampled

Instructions for completing this form are on the reverse side.

Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested.

№ 168571

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

ID#: 6059

DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH ,NC 27603

DATE COLLECTED: 10/09/08
DATE REPORTED : 10/29/08

REVIEWED BY: _____

PARAMETERS	MDL	SWSL	MW-1	MW-2	MW-3S	MW-3D	MW-4S	Analysis Date	Analyst	Method Code
Antimony, ug/l	0.08	6.0	Missing	--- U	--- U	--- U	--- U	10/16/08	LFJ	EPA200.8
Arsenic, ug/l	0.07	10.0	Missing	2.8 J	--- U	0.7 J	0.3 J	10/16/08	LFJ	EPA200.8
Barium, ug/l	0.11	100.0	Missing	163	33.6 J	21.3 J	63.8 J	10/16/08	LFJ	EPA200.8
Beryllium, ug/l	0.06	1.0	Missing	0.6 J	0.1 J	--- U	0.1 J	10/16/08	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	Missing	0.3 J	0.3 J	0.2 J	0.1 J	10/16/08	LFJ	EPA200.8
Cobalt, ug/l	0.03	10.0	Missing	14	4.7 J	0.3 J	7 J	10/16/08	LFJ	EPA200.8
Copper, ug/l	0.05	10.0	Missing	108	3.5 J	1.0 J	57	10/16/08	LFJ	EPA200.8
Total Chromium, ug/l	0.11	10.0	Missing	107	6.5 J	--- U	9.8 J	10/16/08	LFJ	EPA200.8
Lead, ug/l	0.04	10.0	Missing	13	0.7 J	0.2 J	3 J	10/16/08	LFJ	EPA200.8
Nickel, ug/l	0.06	50.0	Missing	16.1 J	4 J	1.0 J	7.1 J	10/16/08	LFJ	EPA200.8
Selenium, ug/l	0.14	10.0	Missing	0.5 J	0.5 J	0.3 J	--- U	10/16/08	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	Missing	0.4 J	--- U	--- U	0.1 J	10/16/08	LFJ	EPA200.8
Thallium, ug/l	0.04	5.0	Missing	0.1 J	--- U	--- U	--- U	10/16/08	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	Missing	129	18.9 J	1.1 J	44	10/16/08	LFJ	EPA200.8
Zinc, ug/l	0.04	10.0	Missing	47	9.5 J	23	25	10/16/08	LFJ	EPA200.8
8260 (duplicate)	0.04	10.0	Missing					/ /		
8260 (duplicate)	0.04	10.0	Missing					/ /		

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

ID#: 6059

DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH ,NC 27603

DATE COLLECTED: 10/09/08
DATE REPORTED : 10/29/08

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-4D	MW-5	MW-6S	MW-6D	MW-7	Analysis Date	Analyst	Method Code
Antimony, ug/l	0.08	6.0	0.1 J	--- U	0.3 J	Missing	Missing	02/17/08	LFJ	EPA200.8
Arsenic, ug/l	0.07	10.0	0.5 J	0.8 J	5.6 J	Missing	Missing	10/21/08	LFJ	EPA200.8
Barium, ug/l	0.11	100.0	52.2 J	66.6 J	1356	Missing	Missing	10/21/08	LFJ	EPA200.8
Beryllium, ug/l	0.06	1.0	--- U	0.3 J	1	Missing	Missing	02/17/08	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.2 J	0.2 J	0.6 J	Missing	Missing	10/21/08	LFJ	EPA200.8
Cobalt, ug/l	0.03	10.0	1 J	10	122	Missing	Missing	10/21/08	LFJ	EPA200.8
Copper, ug/l	0.05	10.0	4.8 J	32	823	Missing	Missing	10/21/08	LFJ	EPA200.8
Total Chromium, ug/l	0.11	10.0	1.5 J	12	201	Missing	Missing	10/21/08	LFJ	EPA200.8
Lead, ug/l	0.04	10.0	0.5 J	9.3 J	28	Missing	Missing	10/21/08	LFJ	EPA200.8
Nickel, ug/l	0.06	50.0	1.7 J	11.8 J	135	Missing	Missing	10/21/08	LFJ	EPA200.8
Selenium, ug/l	0.14	10.0	0.3 J	--- U	1.2 J	Missing	Missing	10/21/08	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	0.1 J	0.1 J	0.5 J	Missing	Missing	10/21/08	LFJ	EPA200.8
Thallium, ug/l	0.04	5.0	0.1 J	0.1 J	0.7 J	Missing	Missing	10/21/08	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	14 J	39	453	Missing	Missing	10/21/08	LFJ	EPA200.8
Zinc, ug/l	0.04	10.0	6.1 J	55	631	Missing	Missing	10/21/08	LFJ	EPA200.8
8260 (duplicate)	0.04	10.0				Missing	Missing	/ /		

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

ID#: 6059

DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH ,NC 27603

DATE COLLECTED: 10/09/08
DATE REPORTED : 10/29/08

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-8	MW-9	Trip Blank	Analysis Date	Analyst	Method Code
Antimony, ug/l	0.08	6.0	0.1 J	--- U		02/17/08	LFJ	EPA200.8
Arsenic, ug/l	0.07	10.0	0.36 J	9 J		10/21/08	LFJ	EPA200.8
Barium, ug/l	0.11	100.0	20.4 J	1251		10/21/08	LFJ	EPA200.8
Beryllium, ug/l	0.06	1.0	0.1 J	4		02/17/08	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.3 J	1		10/21/08	LFJ	EPA200.8
Cobalt, ug/l	0.03	10.0	3.5 J	150		10/21/08	LFJ	EPA200.8
Copper, ug/l	0.05	10.0	12	541		10/21/08	LFJ	EPA200.8
Total Chromium, ug/l	0.11	10.0	19	224		10/21/08	LFJ	EPA200.8
Lead, ug/l	0.04	10.0	2.5 J	47		10/21/08	LFJ	EPA200.8
Nickel, ug/l	0.06	50.0	12.5 J	13.6 J		10/21/08	LFJ	EPA200.8
Selenium, ug/l	0.14	10.0	--- U	3.8 J		10/21/08	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	0.1 J	0.9 J		10/21/08	LFJ	EPA200.8
Thallium, ug/l	0.04	5.0	--- U	0.5 J		10/21/08	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	14.3 J	779		10/21/08	LFJ	EPA200.8
Zinc, ug/l	0.04	10.0	12.3	269		10/21/08	LFJ	EPA200.8

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

CLIENT: DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH, NC 27603

CLIENT ID: 6059

ANALYST: MAO
DATE COLLECTED: 10/09/08
DATE REPORTED: 10/29/08

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	10/22/08 MW-2	10/23/08 MW-3S	10/23/08 MW-3D	10/23/08 MW-4S	10/23/08 MW-4D
	Date Analyzed:						
1. Chloromethane	0.18	1.0	--- U	--- U	--- U	--- U	--- U
2. Vinyl Chloride	0.34	1.0	--- U	--- U	--- U	--- U	--- U
3. Bromomethane	0.26	10.0	--- U	--- U	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U	--- U	--- U	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
7. Acetone	1.21	100.0	--- U	--- U	1.50 J	--- U	--- U
8. Iodomethane	0.12	10.0	--- U	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U	--- U	--- U	--- U
10. Methylene Chloride	0.14	1.0	--- U	--- U	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U	--- U	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
15. 2-Butanone	0.85	100.0	--- U	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.13	1.0	--- U	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.13	1.0	--- U	--- U	0.40 J	--- U	--- U
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U	--- U	--- U	--- U

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

CLIENT: DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH, NC 27603

CLIENT ID: 6059

ANALYST: MAO
DATE COLLECTED: 10/09/08
DATE REPORTED: 10/29/08

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	Date Analyzed: MDL	SWSL	10/23/08 MW-5	10/23/08 MW-6S	10/23/08 MW-8	10/23/08 MW-9	10/23/08 Trip Blank
1. Chloromethane	0.18	1.0	--- U	--- U	--- U	--- U	--- U
2. Vinyl Chloride	0.34	1.0	--- U	--- U	--- U	--- U	--- U
3. Bromomethane	0.26	10.0	--- U	--- U	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U	--- U	--- U	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
7. Acetone	1.21	100.0	--- U	--- U	--- U	--- U	--- U
8. Iodomethane	0.12	10.0	--- U	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U	--- U	--- U	--- U
10. Methylene Chloride	0.14	1.0	--- U	--- U	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U	--- U	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
15. 2-Butanone	0.85	100.0	--- U	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.13	1.0	--- U	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.13	1.0	--- U	--- U	--- U	--- U	0.20 J
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U	--- U	--- U	--- U

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Inc.
P.O. Box 7085, 114 Oakmont Dr.
Greenville, NC 27858

Phone (252) 756-6208 • Fax (252) 756-0633

CHAIN OF CUSTODY RECORD

CLIENT: 6059 **Week: 43**

DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH NC 27603

(919) 828-0577

DISINFECTION: ☐ CHLORINE ☐ UV ☐ NONE ☐ _____

CHLORINE NEUTRALIZED AT COLLECTION

pH CHECK (LAB): 2 2 2 2

CONTAINER TYPE, P/G: P G G G

CHEMICAL PRESERVATION: A E E E

PARAMETERS: A - NONE; B - HNO_3; C - H_2SO_4; D - NAOH; E - HCL; F - ZINC ACETATE; G - NA THIOSULFATE

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Metals	EPA 8260B	8260 Dup. 1	8260 Dup. 2
~~MW-1~~					4	■	■	■	■
MW-2	10/9/08	9:00a			3	■	■	■	
MW-3S		9:30a			3	■	■	■	
MW-3D		9:45a			3	■	■	■	
MW-4S		10:15a			3	■	■	■	
MW-4D		10:30a			3	■	■	■	
MW-5		10:45a			3	■	■	■	
MW-6S		11:30a			4	■	■	■	■
~~MW-6D~~					3	■	■	■	
~~MW-7~~					3	■	■	■	
MW-8					3	■	■	■	

CLASSIFICATION:
- ☐ WASTEWATER (NPDES)
- ☐ DRINKING WATER
- ☐ DWQ/GW
- ☒ SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY: (Y) N

SAMPLES COLLECTED BY: (Please Print) CLARK WIPFIELD

SAMPLES RECEIVED IN LAB AT 1.0 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
[signature]	10/9/08 2:05p	[signature]	10/10 10:00
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS: MW-1 / MW-7 / MW-6D were not sampled due to well being dry after purging.

Instructions for completing this form are on the reverse side.

Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested.

№ 168458

Environment 1, Inc.
P.O. Box 7085, 114 Oakmont Dr.
Greenville, NC 27858

Phone (252) 756-6208 • Fax (252) 756-0633

CHAIN OF CUSTODY RECORD

CLIENT: 6059 **Week: 43**

DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH NC 27603

(919) 828-0577

DISINFECTION
- [ ] CHLORINE
- [ ] UV
- [ ] NONE
- [ ] _____

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Metals	EPA 8260B	8260 Dup. 1	8260 Dup. 2
CHLORINE NEUTRALIZED AT COLLECTION									
pH CHECK (LAB)						<2	<2	<2	<2
CONTAINER TYPE, P/G						P	G	G	G
CHEMICAL PRESERVATION						A	E	E	E
MW-9	10/9/08	11:00a			3				
Trip Blank					2				

PARAMETERS

A - NONE
B - HNO_3
C - H_2SO_4
D - NAOH
E - HCL
F - ZINC ACETATE
G - NA THIOSULFATE

CLASSIFICATION:
- [ ] WASTEWATER (NPDES)
- [ ] DRINKING WATER
- [ ] DWQ/GW
- [x] SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY
Y N

SAMPLES COLLECTED BY: (Please Print)
CLARK WIPFIELD

SAMPLES RECEIVED IN LAB AT 1.0 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
[signature]	10/9/08 2:05p	[signature]	10/10 10:00
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:

Instructions for completing this form are on the reverse side.

Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested.

№ 168457

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

ID#: 6059

DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH ,NC 27603

DATE COLLECTED: 02/24/09
DATE REPORTED : 03/20/09

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-1	MW-2	MW-3S	MW-3D	MW-5	Analysis Date	Analyst	Method Code
Antimony, ug/l	0.08	6.0	--- U	0.2 J	--- U	--- U	--- U	03/03/09	LFJ	EPA200.8
Arsenic, ug/l	0.07	10.0	1.2 J	2.9 J	0.2 J	0.8 J	0.4 J	03/03/09	LFJ	EPA200.8
Barium, ug/l	0.11	100.0	279	164	32 J	34.1 J	23.7 J	03/03/09	LFJ	EPA200.8
Beryllium, ug/l	0.06	1.0	0.3 J	0.5 J	--- U	--- U	0.1 J	03/03/09	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.2 J	0.2 J	0.1 J	--- U	--- U	03/03/09	LFJ	EPA200.8
Cobalt, ug/l	0.03	10.0	26	14	1.6 J	1.5 J	5.3 J	03/03/09	LFJ	EPA200.8
Copper, ug/l	0.05	10.0	330	126	4.7 J	3.8 J	20	03/03/09	LFJ	EPA200.8
Total Chromium, ug/l	0.11	10.0	20	83	6.5 J	1.0 J	6.0 J	03/03/09	LFJ	EPA200.8
Lead, ug/l	0.04	10.0	10	11	0.5 J	0.6 J	2.4 J	03/03/09	LFJ	EPA200.8
Nickel, ug/l	0.06	50.0	23.8 J	16.1 J	3 J	2.3 J	6.1 J	03/03/09	LFJ	EPA200.8
Selenium, ug/l	0.14	10.0	0.2 J	0.3 J	0.7 J	0.7 J	--- U	03/03/09	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	0.2 J	0.4 J	0.1 J	0.1 J	--- U	03/03/09	LFJ	EPA200.8
Thallium, ug/l	0.04	5.0	0.2 J	0.2 J	--- U	--- U	--- U	03/03/09	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	129	151	19.9 J	8.7 J	24.5 J	03/03/09	LFJ	EPA200.8
Zinc, ug/l	0.04	10.0	112	40	6.6 J	15	19	03/03/09	LFJ	EPA200.8

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

REC'D MAR 24 2009

Drinking Water ID: 37715
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

ID#: 6059

DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH ,NC 27603

DATE COLLECTED: 02/23/09
DATE REPORTED : 03/20/09

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-4S	MW-4D	MW-6S	MW-8	Analysis Date	Analyst	Method Code
Antimony, ug/l	0.08	6.0	--- U	--- U	0.2 J	--- U	03/03/09	LFJ	EPA200.8
Arsenic, ug/l	0.07	10.0	1 J	0.6 J	3.6 J	0.6 J	03/03/09	LFJ	EPA200.8
Barium, ug/l	0.11	100.0	199	35 J	1625	13.3 J	03/03/09	LFJ	EPA200.8
Beryllium, ug/l	0.06	1.0	0.2 J	--- U	1.4	--- U	03/03/09	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.1 J	--- U	0.6 J	0.1 J	03/03/09	LFJ	EPA200.8
Cobalt, ug/l	0.03	10.0	17	0.3 J	143	2.8 J	03/03/09	LFJ	EPA200.8
Copper, ug/l	0.05	10.0	200	2.0 J	827	11	03/03/09	LFJ	EPA200.8
Total Chromium, ug/l	0.11	10.0	21	0.3 J	162	13	03/03/09	LFJ	EPA200.8
Lead, ug/l	0.04	10.0	5.5 J	0.1 J	26	1.9 J	03/03/09	LFJ	EPA200.8
Nickel, ug/l	0.06	50.0	14.1 J	0.9 J	135	8.5 J	03/03/09	LFJ	EPA200.8
Selenium, ug/l	0.14	10.0	0.2 J	--- U	1.2 J	--- U	03/03/09	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	0.2 J	--- U	0.4 J	0.1 J	03/03/09	LFJ	EPA200.8
Thallium, ug/l	0.04	5.0	0.2 J	--- U	0.9 J	--- U	03/03/09	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	119	11 J	431	16.7 J	03/03/09	LFJ	EPA200.8
Zinc, ug/l	0.04	10.0	70	2 J	705	6.1 J	03/03/09	LFJ	EPA200.8

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

ID#: 6059

DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH ,NC 27603

DATE COLLECTED: 02/24/09
DATE REPORTED : 03/20/09

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-6D	MW-7	MW-9	Trip Blank	Analysis Date	Analyst	Method Code
Antimony, ug/l	0.08	6.0	Missing	Missing	--- U		03/03/09	LFJ	EPA200.8
Arsenic, ug/l	0.07	10.0	Missing	Missing	3.2 J		03/03/09	LFJ	EPA200.8
Barium, ug/l	0.11	100.0	Missing	Missing	373		03/03/09	LFJ	EPA200.8
Beryllium, ug/l	0.06	1.0	Missing	Missing	1.4		03/03/09	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	Missing	Missing	0.5 J		03/03/09	LFJ	EPA200.8
Cobalt, ug/l	0.03	10.0	Missing	Missing	16		03/03/09	LFJ	EPA200.8
Copper, ug/l	0.05	10.0	Missing	Missing	227		03/03/09	LFJ	EPA200.8
Total Chromium, ug/l	0.11	10.0	Missing	Missing	76		03/03/09	LFJ	EPA200.8
Lead, ug/l	0.04	10.0	Missing	Missing	17		03/03/09	LFJ	EPA200.8
Nickel, ug/l	0.06	50.0	Missing	Missing	9.7 J		03/03/09	LFJ	EPA200.8
Selenium, ug/l	0.14	10.0	Missing	Missing	1.4 J		03/03/09	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	Missing	Missing	0.3 J		03/03/09	LFJ	EPA200.8
Thallium, ug/l	0.04	5.0	Missing	Missing	0.2 J		03/03/09	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	Missing	Missing	367		03/03/09	LFJ	EPA200.8
Zinc, ug/l	0.04	10.0	Missing	Missing	88		03/03/09	LFJ	EPA200.8
8260 (duplicate)	0.04	10.0	Missing	Missing			/ /		

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Inc.
P.O. Box 7085, 114 Oakmont Dr.
Greenville, NC 27858

Phone (252) 756-6208 • Fax (252) 756-0633

CHAIN OF CUSTODY RECORD

CLIENT: 6059 **Week:** 1

DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH NC 27603

(919) 828-0577

DISINFECTION
- [ ] CHLORINE
- [ ] UV
- [ ] NONE
- [ ] _____

CHLORINE NEUTRALIZED AT COLLECTION																				
pH CHECK (LAB)		<2	<2	<2																
CONTAINER TYPE, P/G	P	G	G	G																
CHEMICAL PRESERVATION	A	E	E	E																

PARAMETERS

A - NONE D - NAOH
B - HNO_3 E - HCL
C - H_2SO_4 F - ZINC ACETATE
G - NA THIOSULFATE

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Metals	EPA 8260B	8260 Dup. 1	8260 Dup. 2
MW-1	2/24/09	1:20			4				
MW-2	2/24/09	12:40			3				
MW-3S	2/24/09	11:45			3				
MW-3D	2/24/09	12:05			3				
MW-4S	2/23/09	2:50			3				
MW-4D	2/23/09	2:45			3				
MW-5	2/24/09	10:25			3				
MW-6S	2/23/09	11:35			4				
~~MW-6D~~					~~3~~				
~~MW-7~~					~~3~~				
MW-8	2/23/09	12:00			3				

CLASSIFICATION:
- [ ] WASTEWATER (NPDES)
- [ ] DRINKING WATER
- [ ] DWQ/GW
- [X] SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY
(Y) N

SAMPLES COLLECTED BY: (Please Print)
Don Misenheimer

SAMPLES RECEIVED IN LAB AT 0.2 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
[signature]	2/25 3:20	[signature]	2/26 10:00
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS: MW-6d had insufficient water to Sam
MW-7 had insufficient to sample

Instructions for completing this form are on the reverse side.

Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested.

№ 176702

FORM #5

Environment 1, Inc.
P.O. Box 7085, 114 Oakmont Dr.
Greenville, NC 27858

Phone (252) 756-6208 • Fax (252) 756-0633

CHAIN OF CUSTODY RECORD

CLIENT: 6059 **Week:** 1

DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH NC 27603

(919) 828-0577

DISINFECTION
- [ ] CHLORINE
- [ ] UV
- [ ] NONE
- [ ] _____

CHLORINE NEUTRALIZED AT COLLECTION

pH CHECK (LAB)

CONTAINER TYPE, P/G

CHEMICAL PRESERVATION

PARAMETERS

A - NONE
B - HNO_3
C - H_2SO_4
D - NAOH
E - HCL
F - ZINC ACETATE
G - NA THIOSULFATE

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Metals	EPA 8260B	8260 Dup. 1	8260 Dup. 2
						P	G	G	G
						A	E	E	E
MW-9	2/24/09	11:15			3				
Trip Blank	—	—			2				

CLASSIFICATION:
- [ ] WASTEWATER (NPDES)
- [ ] DRINKING WATER
- [ ] DWQ/GW
- [X] SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY
(Y) N

SAMPLES COLLECTED BY:
(Please Print)
Don Miserhoimer

SAMPLES RECEIVED IN LAB AT 0.2 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
[signature]	2/25 3:20	[signature]	2/26 10:00
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:

Instructions for completing this form are on the reverse side.

Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested.

№ 176701

FORM #5

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

CLIENT: DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH, NC 27603

CLIENT ID: 6059

ANALYST: MAO
DATE COLLECTED: 02/24/09
DATE ANALYZED: 03/09/09
DATE REPORTED: 03/20/09

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	MW-1	MW-2	MW-3S	MW-3D	MW-5
1. Chloromethane	0.18	1.0	--- U	--- U	0.20 J	--- U	--- U
2. Vinyl Chloride	0.34	1.0	--- U	--- U	--- U	--- U	--- U
3. Bromomethane	0.26	10.0	--- U	--- U	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U	--- U	--- U	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
7. Acetone	1.21	100.0	--- U	1.40 J	6.50 J	8.60 J	--- U
8. Iodomethane	0.12	10.0	--- U	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U	--- U	0.40 J	--- U
10. Methylene Chloride	0.14	1.0	--- U	--- U	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U	--- U	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
15. 2-Butanone	0.85	100.0	--- U	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.13	1.0	--- U	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.13	1.0	--- U	--- U	--- U	0.20 J	--- U
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U	--- U	--- U	--- U

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

CLIENT: DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH, NC 27603

REVIEWED BY:

CLIENT ID: 6059

ANALYST: MAO
DATE COLLECTED: 02/23/09
DATE ANALYZED: 03/09/09
DATE REPORTED: 03/20/09

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	MW-4S	MW-4D	MW-6S	MW-8
1. Chloromethane	0.18	1.0	--- U	--- U	--- U	--- U
2. Vinyl Chloride	0.34	1.0	--- U	--- U	--- U	--- U
3. Bromomethane	0.26	10.0	--- U	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U	--- U	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U
7. Acetone	1.21	100.0	--- U	--- U	--- U	--- U
8. Iodomethane	0.12	10.0	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	0.30 J	--- U	0.20 J
10. Methylene Chloride	0.14	1.0	--- U	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U
15. 2-Butanone	0.85	100.0	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U	--- U
20. Benzene	0.16	1.0	--- U	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U	--- U	--- U
22. Trichloroethene	0.13	1.0	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U	--- U
27. Toluene	0.13	1.0	--- U	--- U	--- U	--- U
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U	--- U	--- U

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

CLIENT: DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH, NC 27603

CLIENT ID: 6059

ANALYST: MAO
DATE COLLECTED: 02/24/09
DATE ANALYZED: 03/09/09
DATE REPORTED: 03/20/09

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	MW-9	Trip Blank
1. Chloromethane	0.18	1.0	--- U	0.20 J
2. Vinyl Chloride	0.34	1.0	--- U	--- U
3. Bromomethane	0.26	10.0	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U
7. Acetone	1.21	100.0	2.90 J	--- U
8. Iodomethane	0.12	10.0	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U
10. Methylene Chloride	0.14	1.0	--- U	--- U
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U
15. 2-Butanone	0.85	100.0	--- U	--- U
16. Bromochloromethane	0.11	3.0	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U
20. Benzene	0.16	1.0	--- U	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U
22. Trichloroethene	0.13	1.0	--- U	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U
27. Toluene	0.13	1.0	--- U	0.40 J
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

REC'D MAY 13 2009

ID#: 6059

DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH ,NC 27603

DATE COLLECTED: 04/09/09
DATE REPORTED : 05/11/09

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-1	MW-2	MW-3S	MW-3D	MW-4S	Analysis Date	Analyst	Method Code
Antimony, ug/l	0.06	6.0	--- U	--- U	--- U	--- U	0.7 J	04/23/09	LFJ	EPA200.8
Arsenic, ug/l	0.17	10.0	1.5 J	2.8 J	0.9 J	1 J	1.9 J	04/23/09	LFJ	EPA200.8
Barium, ug/l	0.04	100.0	218	165	44.4 J	37.6 J	193	04/23/09	LFJ	EPA200.8
Beryllium, ug/l	0.06	1.0	0.3 J	0.4 J	0.1 J	--- U	0.2 J	04/23/09	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.2 J	0.3 J	0.2 J	--- U	0.2 J	04/23/09	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	18	12	3.1 J	1.1 J	20	04/23/09	LFJ	EPA200.8
Copper, ug/l	0.04	10.0	216	110	7.7 J	1.4 J	176	04/23/09	LFJ	EPA200.8
Total Chromium, ug/l	0.10	10.0	14	107	14	--- U	25	04/23/09	LFJ	EPA200.8
Lead, ug/l	0.04	10.0	8.1 J	10	1.2 J	0.2 J	4.9 J	04/23/09	LFJ	EPA200.8
Nickel, ug/l	0.04	50.0	15.9 J	12.7 J	4.4 J	1.7 J	17.9 J	04/23/09	LFJ	EPA200.8
Selenium, ug/l	0.12	10.0	--- U	--- U	0.5 J	--- U	--- U	04/23/09	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	0.1 J	0.4 J	--- U	--- U	0.3 J	04/23/09	LFJ	EPA200.8
Thallium, ug/l	0.03	5.0	0.2 J	0.1 J	--- U	--- U	0.1 J	04/23/09	LFJ	EPA200.8
Vanadium, ug/l	0.28	25.0	91	141	33	7.5 J	126	04/23/09	LFJ	EPA200.8
Zinc, ug/l	0.14	10.0	91	44	14	9.3 J	86	04/23/09	LFJ	EPA200.8

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

ID#: 6059

DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH ,NC 27603

DATE COLLECTED: 04/09/09
DATE REPORTED : 05/11/09

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-4D	MW-5	MW-6S	MW-6D	MW-7	Analysis Date	Analyst	Method Code
Antimony, ug/l	0.06	6.0	0.1 J	0.1 J	--- U	Missing	Missing	04/23/09	LFJ	EPA200.8
Arsenic, ug/l	0.17	10.0	0.5 J	0.8 J	3.2 J	Missing	Missing	04/23/09	LFJ	EPA200.8
Barium, ug/l	0.04	100.0	37.4 J	22.8 J	818	Missing	Missing	04/23/09	LFJ	EPA200.8
Beryllium, ug/l	0.06	1.0	--- U	0.1 J	0.8 J	Missing	Missing	04/23/09	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.1 J	0.1 J	0.4 J	Missing	Missing	04/23/09	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	0.2 J	4.3 J	27	Missing	Missing	04/23/09	LFJ	EPA200.8
Copper, ug/l	0.04	10.0	1.9 J	17	372	Missing	Missing	04/23/09	LFJ	EPA200.8
Total Chromium, ug/l	0.10	10.0	--- U	4 J	60	Missing	Missing	04/23/09	LFJ	EPA200.8
Lead, ug/l	0.04	10.0	0.1 J	1.6 J	13	Missing	Missing	04/23/09	LFJ	EPA200.8
Nickel, ug/l	0.04	50.0	1 J	5.1 J	26.7 J	Missing	Missing	04/23/09	LFJ	EPA200.8
Selenium, ug/l	0.12	10.0	--- U	--- U	0.9 J	Missing	Missing	04/23/09	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	--- U	0.1 J	0.2 J	Missing	Missing	04/23/09	LFJ	EPA200.8
Thallium, ug/l	0.03	5.0	--- U	--- U	0.3 J	Missing	Missing	04/23/09	LFJ	EPA200.8
Vanadium, ug/l	0.28	25.0	12.4 J	23 J	205	Missing	Missing	04/23/09	LFJ	EPA200.8
Zinc, ug/l	0.14	10.0	3.4 J	18	268	Missing	Missing	04/23/09	LFJ	EPA200.8
8260 (duplicate)	0.14	10.0				Missing	Missing			

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

ID#: 6059

DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH ,NC 27603

DATE COLLECTED: 04/09/09
DATE REPORTED : 05/11/09

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-8	MW-9	Trip Blank	Analysis Date	Analyst	Method Code
Antimony, ug/l	0.06	6.0	--- U	--- U		04/23/09	LFJ	EPA200.8
Arsenic, ug/l	0.17	10.0	0.7 J	3.5 J		04/23/09	LFJ	EPA200.8
Barium, ug/l	0.04	100.0	8.7 J	186		04/23/09	LFJ	EPA200.8
Beryllium, ug/l	0.06	1.0	--- U	0.7 J		04/23/09	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.1 J	4.5		04/23/09	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	1.4 J	10		04/23/09	LFJ	EPA200.8
Copper, ug/l	0.04	10.0	5.2 J	82		04/23/09	LFJ	EPA200.8
Total Chromium, ug/l	0.10	10.0	5.9 J	20		04/23/09	LFJ	EPA200.8
Lead, ug/l	0.04	10.0	0.8 J	8.1 J		04/23/09	LFJ	EPA200.8
Nickel, ug/l	0.04	50.0	4.7 J	6.8 J		04/23/09	LFJ	EPA200.8
Selenium, ug/l	0.12	10.0	--- U	1.5 J		04/23/09	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	--- U	0.2 J		04/23/09	LFJ	EPA200.8
Thallium, ug/l	0.03	5.0	--- U	0.1 J		04/23/09	LFJ	EPA200.8
Vanadium, ug/l	0.28	25.0	14.7 J	122		04/23/09	LFJ	EPA200.8
Zinc, ug/l	0.14	10.0	4.3 J	64		04/23/09	LFJ	EPA200.8

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

CLIENT: DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH, NC 27603

CLIENT ID: 6059

ANALYST: MAO
DATE COLLECTED: 04/09/09
DATE ANALYZED: 04/27/09
DATE REPORTED: 05/11/09

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	MW-1	MW-2	MW-3S	MW-3D	MW-4S
1. Chloromethane	0.18	1.0	--- U	--- U	--- U	--- U	--- U
2. Vinyl Chloride	0.34	1.0	--- U	--- U	--- U	--- U	--- U
3. Bromomethane	0.26	10.0	--- U	--- U	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U	--- U	--- U	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
7. Acetone	1.21	100.0	--- U	1.30 J	--- U	2.80 J	--- U
8. Iodomethane	0.12	10.0	--- U	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U	--- U	0.70 J	--- U
10. Methylene Chloride	0.14	1.0	--- U	--- U	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U	--- U	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
15. 2-Butanone	0.85	100.0	--- U	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.13	1.0	--- U	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.13	1.0	0.20 J	0.20 J	0.20 J	0.20 J	0.20 J
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U	--- U	--- U	--- U

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

CLIENT: DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH, NC 27603

CLIENT ID: 6059

ANALYST: MAO
DATE COLLECTED: 04/09/09
DATE ANALYZED: 04/27/09
DATE REPORTED: 05/11/09

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	MW-4D	MW-5	MW-6S	MW-8	MW-9
1. Chloromethane	0.18	1.0	--- U	--- U	--- U	--- U	--- U
2. Vinyl Chloride	0.34	1.0	--- U	--- U	--- U	--- U	--- U
3. Bromomethane	0.26	10.0	--- U	--- U	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U	--- U	--- U	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
7. Acetone	1.21	100.0	--- U	--- U	4.90 J	--- U	--- U
8. Iodomethane	0.12	10.0	--- U	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	0.20 J	--- U	--- U	--- U	--- U
10. Methylene Chloride	0.14	1.0	--- U	--- U	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U	--- U	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
15. 2-Butanone	0.85	100.0	--- U	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.13	1.0	--- U	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.13	1.0	--- U	0.20 J	0.20 J	0.20 J	0.20 J
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U	--- U	--- U	--- U

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

CLIENT: DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH, NC 27603

CLIENT ID: 6059

ANALYST: MAO
DATE COLLECTED: 04/09/09
DATE ANALYZED: 04/27/09
DATE REPORTED: 05/11/09

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	Trip Blank
1. Chloromethane	0.18	1.0	--- U
2. Vinyl Chloride	0.34	1.0	--- U
3. Bromomethane	0.26	10.0	--- U
4. Chloroethane	0.29	10.0	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U
7. Acetone	1.21	100.0	--- U
8. Iodomethane	0.12	10.0	--- U
9. Carbon Disulfide	0.14	100.0	--- U
10. Methylene Chloride	0.14	1.0	0.20 J
11. trans-1,2-Dichloroethene	0.13	5.0	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U
13. Vinyl Acetate	0.20	50.0	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U
15. 2-Butanone	0.85	100.0	--- U
16. Bromochloromethane	0.11	3.0	--- U
17. Chloroform	0.13	5.0	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U
20. Benzene	0.16	1.0	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U
22. Trichloroethene	0.13	1.0	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U
24. Bromodichloromethane	0.13	1.0	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U
27. Toluene	0.13	1.0	0.30 J
28. trans-1,3-Dichloropropene	0.14	1.0	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U
30. Tetrachloroethene	0.16	1.0	--- U
31. 2-Hexanone	1.00	50.0	--- U
32. Dibromochloromethane	0.14	3.0	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U
34. Chlorobenzene	0.13	3.0	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U
36. Ethylbenzene	0.16	1.0	--- U
37. Xylenes	0.48	5.0	--- U
38. Dibromomethane	0.17	10.0	--- U
39. Styrene	0.16	1.0	--- U
40. Bromoform	0.11	3.0	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U
46. Acrylonitrile	1.49	200.0	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U

NOTE: Samples analyzed beyond holding time due to lab instrument problem

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Inc.
P.O. Box 7085; 114 Oakmont Dr.
Greenville, NC 27858

Phone (252) 756-6208 • Fax (252) 756-0633

CHAIN OF CUSTODY RECORD

CLIENT: 6059 **Week:** 11

DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH NC 27603

(919) 828-0577

DISINFECTION: ☐ CHLORINE ☐ UV ☐ NONE ☐ _____

CHLORINE NEUTRALIZED AT COLLECTION

pH CHECK (LAB): <2 <2 <2 <2

CONTAINER TYPE, P/G: P G G G

CHEMICAL PRESERVATION: A E E E

A - NONE; B - HNO_3; C - H_2SO_4; D - NAOH; E - HCL; F - ZINC ACETATE; G - NA THIOSULFATE

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Metals	EPA 8260B	8260 Dup. 1	8260 Dup. 2
MW-1	4/9/09	6:34pm			4	■	■	■	■
MW-2	4/9/09	6:22pm			3	■	■	■	
MW-3S	4/9/09	6:07pm			3	■	■	■	
MW-3D	4/9/09	6:12pm			3	■	■	■	
MW-4S	4/9/09	5:55pm			3	■	■	■	
MW-4D	4/9/09	6:00pm			3	■	■	■	
MW-5	4/9/09	5:38pm			3	■	■	■	
MW-6S	4/9/09	5:29pm			4	■	■	■	■
MW-6D	4/9/09	DRY			3	■	■	■	
MW-7	4/9/09	DRY			3	■	■	■	
MW-8	4/9/09	5:21pm			3	■	■	■	

PARAMETERS

CLASSIFICATION:
- ☐ WASTEWATER (NPDES)
- ☐ DRINKING WATER
- ☐ DWQ/GW
- ☒ SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY: (Y) N

SAMPLES COLLECTED BY: (Please Print) DM RS

SAMPLES RECEIVED IN LAB AT 0.6 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
	4/10/09 2:23pm	B [illegible]	4/14 10:20
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:

PLEASE READ Instructions for completing this form on the reverse side.

Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested.

№ 178820

FORM #5

Environment 1, Inc.
P.O. Box 7085, 114 Oakmont Dr.
Greenville, NC 27858

Phone (252) 756-6208 • Fax (252) 756-0633

CHAIN OF CUSTODY RECORD

CLIENT: 6059 **Week: 11**

DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH NC 27603

(919) 828-0577

DISINFECTION
- ☐ CHLORINE
- ☐ UV
- ☐ NONE
- ☐ _____

																						CHLORINE NEUTRALIZED AT COLLECTION
						L2	L2	L2														pH CHECK (LAB)
						P	G	G	G													CONTAINER TYPE, P/G
						A	E	E	E													CHEMICAL PRESERVATION
SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Metals	EPA 8260B	8260 Dup. 1	8260 Dup. 2													PARAMETERS
MW-9	4/9/09	5:47 pm			3																	
Trip Blank					2																	

A - NONE D - NAOH
B - HNO_3 E - HCL
C - H_2SO_4 F - ZINC ACETATE
G - NA THIOSULFATE

CLASSIFICATION:
- ☐ WASTEWATER (NPDES)
- ☐ DRINKING WATER
- ☐ DWQ/GW
- ☒ SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY
Y N

SAMPLES COLLECTED BY:
(Please Print)
DM RS

SAMPLES RECEIVED IN LAB AT 0.6 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
[signature]	4/10/09 2:23 pm	[signature]	4/14 10:20
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:

PLEASE READ Instructions for completing this form on the reverse side.

Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested.

№ 178819

FORM #5

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

REC'D MAY 13 2009

ID#: 6059 A

DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH ,NC 27603

DATE COLLECTED: 04/09/09
DATE REPORTED : 05/11/09

REVIEWED BY:

PARAMETERS	MDL	SWSL	SW-1	SW-2	SW-3	Analysis Date	Analyst	Method Code
Antimony, ug/l	0.06	6.0	0.2 J	0.2 J		04/23/09	LFJ	EPA200.8
Antimony, ug/l	0.06	6.0			--- U	04/28/09	CMF	EPA200.8
Arsenic, ug/l	0.17	10.0	1.1 J	0.7 J		04/23/09	LFJ	EPA200.8
Arsenic, ug/l	0.17	10.0			--- U	04/28/09	CMF	EPA200.8
Barium, ug/l	0.04	100.0	29.2 J	30.7 J		04/23/09	LFJ	EPA200.8
Barium, ug/l	0.04	100.0			22.7 J	04/28/09	CMF	EPA200.8
Beryllium, ug/l	0.06	1.0	--- U	--- U		04/23/09	LFJ	EPA200.8
Beryllium, ug/l	0.06	1.0			--- U	04/28/09	CMF	EPA200.8
Cadmium, ug/l	0.04	1.0	0.2 J	--- U		04/23/09	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0			--- U	04/28/09	CMF	EPA200.8
Cobalt, ug/l	0.02	10.0	0.5 J	0.4 J		04/23/09	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0			1.4 J	04/28/09	CMF	EPA200.8
Copper, ug/l	0.04	10.0	2.7 J	2 J		04/23/09	LFJ	EPA200.8
Copper, ug/l	0.04	10.0			1.8 J	04/28/09	CMF	EPA200.8
Total Chromium, ug/l	0.10	10.0	0.4 J	--- U		04/23/09	LFJ	EPA200.8
Total Chromium, ug/l	0.10	10.0			0.2 J	04/28/09	CMF	EPA200.8
Lead, ug/l	0.04	10.0	0.3 J	0.2 J		04/23/09	LFJ	EPA200.8
Lead, ug/l	0.04	10.0			0.1 J	04/28/09	CMF	EPA200.8
Nickel, ug/l	0.04	50.0	1.8 J	1.7 J		04/23/09	LFJ	EPA200.8
Nickel, ug/l	0.04	50.0			1.0 J	04/28/09	CMF	EPA200.8
Selenium, ug/l	0.12	10.0	--- U	--- U		04/23/09	LFJ	EPA200.8
Selenium, ug/l	0.12	10.0			0.3 J	04/28/09	CMF	EPA200.8
Silver, ug/l	0.04	10.0	0.1 J	0.1 J		04/23/09	LFJ	EPA200.8
Silver, ug/l	0.04	10.0			--- U	04/28/09	CMF	EPA200.8
Thallium, ug/l	0.03	5.0	--- U	--- U		04/23/09	LFJ	EPA200.8
Thallium, ug/l	0.03	5.0			--- U	04/28/09	CMF	EPA200.8
Vanadium, ug/l	0.28	25.0	3.7 J	3.4 J		04/23/09	LFJ	EPA200.8
Vanadium, ug/l	0.28	25.0			3.1 J	04/28/09	CMF	EPA200.8
Zinc, ug/l	0.14	10.0	6.1 J	3.7 J		04/23/09	LFJ	EPA200.8
Zinc, ug/l	0.14	10.0			4.1 J	04/28/09	CMF	EPA200.8

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

CLIENT: DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH, NC 27603

CLIENT ID: 6059 A

ANALYST: MAO
DATE COLLECTED: 04/09/09
DATE ANALYZED: 04/27/09
DATE REPORTED: 05/11/09

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	SW-1	SW-2	SW-3
1. Chloromethane	0.18	1.0	--- U	--- U	--- U
2. Vinyl Chloride	0.34	1.0	--- U	--- U	--- U
3. Bromomethane	0.26	10.0	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U	--- U
7. Acetone	1.21	100.0	1.30 J	--- U	--- U
8. Iodomethane	0.12	10.0	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U	--- U
10. Methylene Chloride	0.14	1.0	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U	--- U
15. 2-Butanone	0.85	100.0	--- U	--- U	--- U
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U
20. Benzene	0.16	1.0	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U	--- U
22. Trichloroethene	0.13	1.0	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U
27. Toluene	0.13	1.0	--- U	--- U	--- U
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U	--- U

NOTE: Samples analyzed beyond holding time due to lab instrument problem

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Inc.
P.O. Box 7085, 114 Oakmont Dr.
Greenville, NC 27858

Phone (252) 756-6208 • Fax (252) 756-0633

CHAIN OF CUSTODY RECORD

CLIENT: 6059 A **Week: 11**

DAVIDSON COUNTY (PHASE 2)
MS. JOAN SMYTH
RICHARDSON SMITH GARDNER
14 N. BOYLAN AVENUE
RALEIGH NC 27603

(919) 828-0577

DISINFECTION: ☐ CHLORINE ☐ UV ☐ NONE ☐ _____

CHLORINE NEUTRALIZED AT COLLECTION																					
pH CHECK (LAB)																					
CONTAINER TYPE, P/G																					
CHEMICAL PRESERVATION																					
PARAMETERS																					

Appendix D

Aquifer Slug Test Data and Analysis

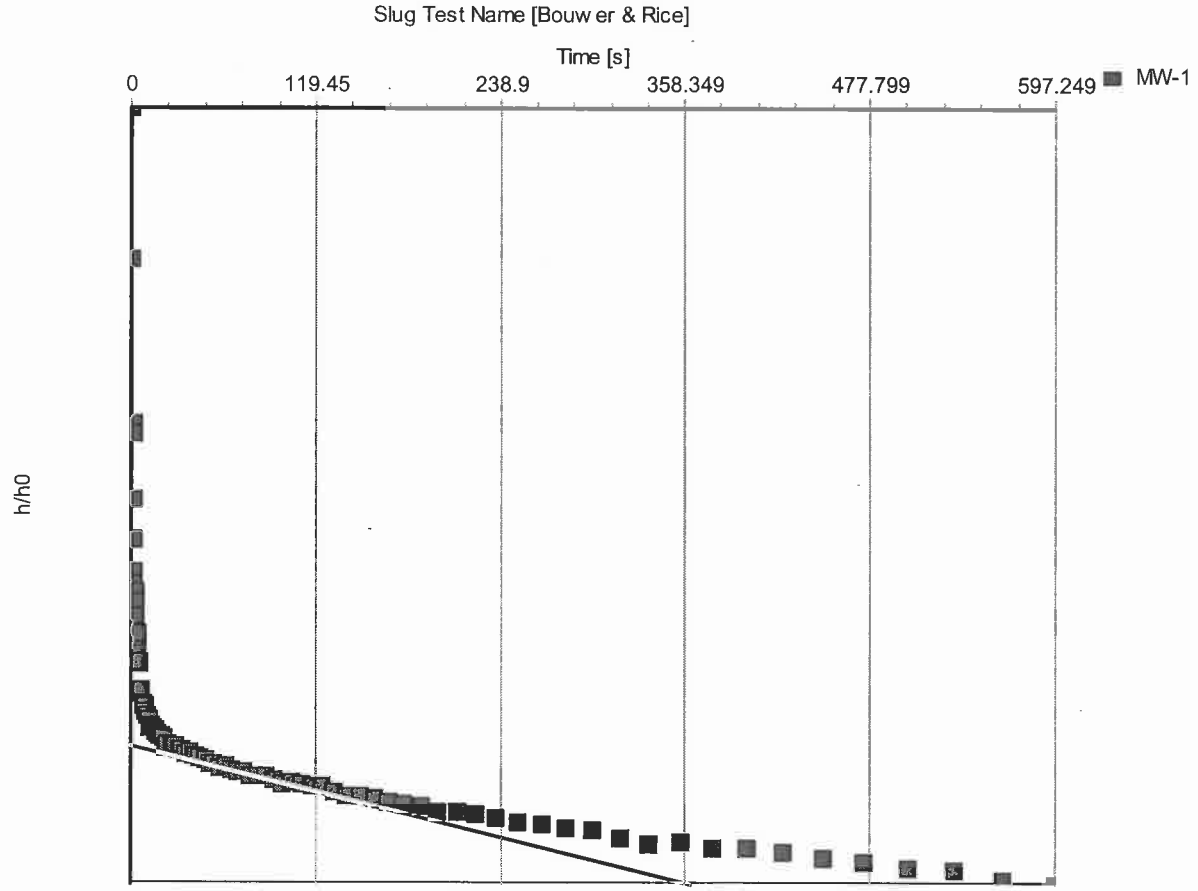
Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Analysis Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill



Slug Test: **Slug Test Name**

Analysis Method: **Bouwer & Rice**

Analysis Results:

Conductivity: 1.61E-3 [ft/d]

Test parameters:

Test Well:	MW-1	Aquifer Thickness:	12.44 [ft]
Casing radius:	0.083 [ft]	Gravel Pack Porosity (%)	25
Screen length:	10 [ft]		
Boring radius:	0.1667 [ft]		
r(eff):	0.110 [ft]		

Comments:

Evaluated by: JAS

Evaluation Date: 6/24/2009

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1
Number:
Client: Davidson County Landfill

Test Well:	**MW-1**	**Slug Test:**	**Slug Test Name**
		Test Well:	MW-1
Depth to Static WL:	17.46 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:		Screen length:	10 [ft]
Date:	6/24/2009	Aquifer Thickness:	12.44 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
1	0.308	16.59	-0.87
2	0.51	16.73	-0.73
3	0.713	16.89	-0.57
4	0.92	16.90	-0.56
5	1.138	16.96	-0.50
6	1.343	16.99	-0.47
7	1.545	17.02	-0.44
8	1.747	17.03	-0.43
9	2.015	17.04	-0.42
10	2.219	17.06	-0.41
11	2.421	17.06	-0.40
12	2.624	17.05	-0.41
13	2.826	17.06	-0.40
14	3.029	17.08	-0.38
15	3.249	17.08	-0.38
16	3.609	17.08	-0.38
17	3.969	17.09	-0.37
18	4.389	17.10	-0.36
19	4.809	17.11	-0.35
20	5.229	17.10	-0.36
21	5.709	17.10	-0.36
22	6.249	17.13	-0.33
23	6.729	17.13	-0.33
24	7.329	17.14	-0.32
25	7.929	17.14	-0.32
26	8.529	17.14	-0.32
27	9.189	17.15	-0.31
28	9.909	17.15	-0.31
29	10.689	17.15	-0.31
30	11.469	17.16	-0.30
31	12.309	17.16	-0.30

Richardson Smith Gardner	Slug Test Data Report	
14 N. Boylan Avenue	Project: Davidson Co. Phase 2 Area 1	
Raleigh, North Carolina 27603	Number:	
Ph. 919-828-0577	Client: Davidson County Landfill	Page 2

Test Well:	**MW-1**	**Slug Test:**	**Slug Test Name**
		Test Well:	MW-1
Depth to Static WL:	17.46 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:		Screen length:	10 [ft]
Date:	6/24/2009	Aquifer Thickness:	12.44 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
32	13.209	17.16	-0.30
33	14.169	17.16	-0.30
34	15.129	17.17	-0.29
35	16.209	17.17	-0.29
36	17.349	17.17	-0.29
37	18.549	17.17	-0.29
38	19.809	17.17	-0.29
39	21.129	17.17	-0.29
40	22.597	17.18	-0.28
41	24.069	17.18	-0.28
42	25.629	17.18	-0.28
43	27.309	17.18	-0.28
44	29.109	17.18	-0.28
45	30.969	17.19	-0.28
46	33.009	17.19	-0.28
47	35.109	17.19	-0.27
48	37.329	17.19	-0.27
49	39.729	17.19	-0.27
50	42.249	17.19	-0.27
51	44.889	17.19	-0.27
52	47.709	17.19	-0.27
53	50.709	17.20	-0.26
54	53.889	17.20	-0.26
55	57.249	17.20	-0.26
56	60.849	17.20	-0.26
57	64.449	17.20	-0.26
58	68.649	17.20	-0.26
59	72.849	17.20	-0.26
60	77.049	17.21	-0.25
61	81.849	17.21	-0.25
62	87.249	17.21	-0.25

Richardson Smith Gardner 14 N. Boylan Avenue Raleigh, North Carolina 27603 Ph. 919-828-0577	Slug Test Data Report Project: Davidson Co. Phase 2 Area 1 Number: Client: Davidson County Landfill	Page 3

Test Well:	**MW-1**	**Slug Test:**	**Slug Test Name**
		Test Well:	MW-1
Depth to Static WL:	17.46 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:		Screen length:	10 [ft]
Date:	6/24/2009	Aquifer Thickness:	12.44 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
63	92.049	17.21	-0.25
64	98.049	17.22	-0.25
65	104.049	17.21	-0.25
66	110.049	17.22	-0.25
67	116.649	17.22	-0.24
68	123.849	17.22	-0.24
69	131.649	17.22	-0.24
70	139.449	17.23	-0.23
71	147.849	17.23	-0.23
72	156.849	17.23	-0.23
73	166.449	17.23	-0.23
74	176.049	17.23	-0.23
75	186.849	17.24	-0.23
76	198.249	17.24	-0.22
77	210.249	17.24	-0.22
78	222.849	17.24	-0.22
79	236.049	17.25	-0.21
80	250.449	17.25	-0.21
81	265.449	17.25	-0.21
82	281.049	17.26	-0.21
83	297.849	17.26	-0.20
84	315.849	17.26	-0.20
85	334.478	17.27	-0.19
86	354.849	17.27	-0.19
87	375.849	17.27	-0.19
88	398.049	17.27	-0.19
89	422.049	17.28	-0.18
90	447.249	17.28	-0.18
91	473.649	17.29	-0.17
92	501.849	17.29	-0.17
93	531.849	17.29	-0.17

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

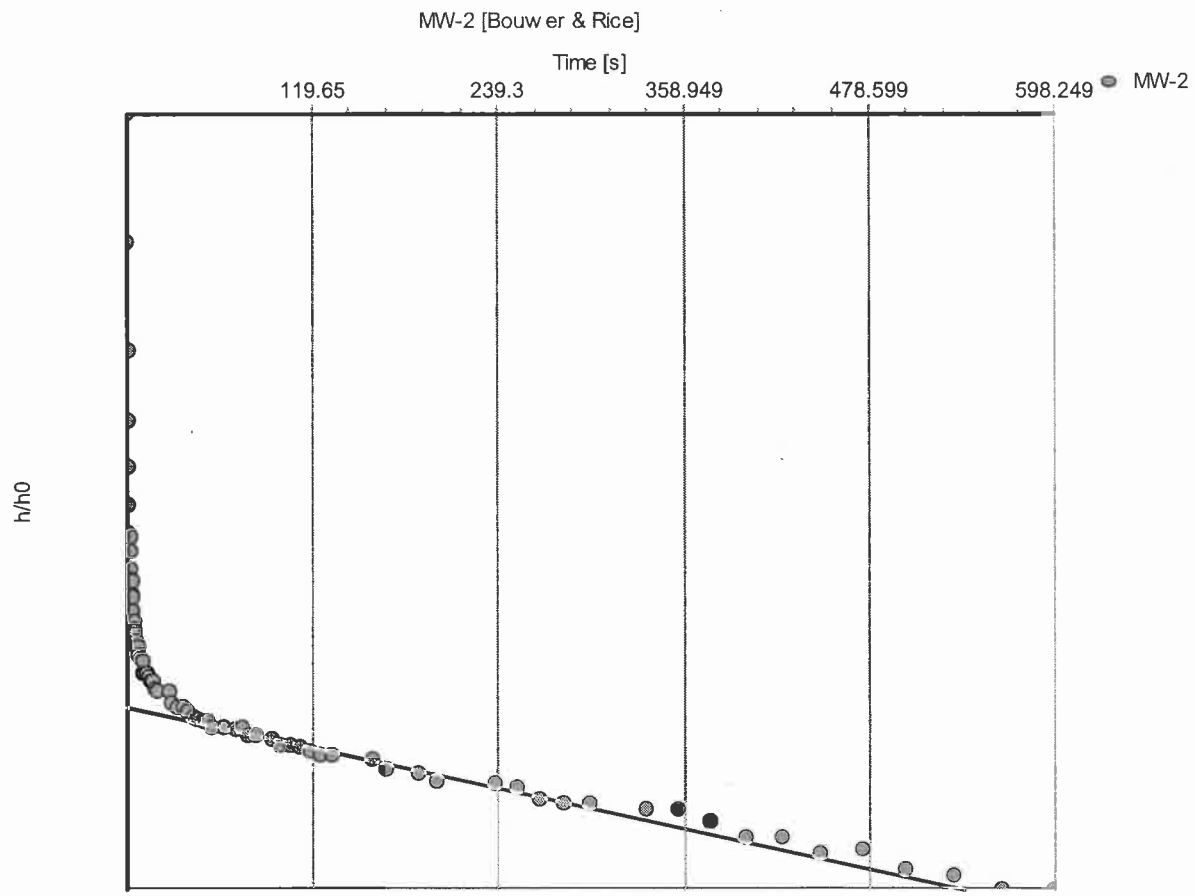
Test Well:	**MW-1**	**Slug Test:**	**Slug Test Name**
		Test Well:	MW-1
Depth to Static WL:	17.46 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:		Screen length:	10 [ft]
Date:	6/24/2009	Aquifer Thickness:	12.44 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
94	563.649	17.30	-0.16
95	597.249	17.31	-0.16

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Analysis Report

Project:	Davidson Co. Phase 2 Area 1
Number:	
Client:	Davidson County Landfill



Slug Test: **MW-2**

Analysis Method: **Bouwer & Rice**

Analysis Results:

Conductivity: 6.75E-2 [ft/d]

Test parameters:

Test Well:	MW-2	Aquifer Thickness:	2.26 [ft]
Casing radius:	0.083 [ft]	Gravel Pack Porosity (%)	25
Screen length:	5 [ft]		
Boring radius:	0.1667 [ft]		
r(eff):	0.110 [ft]		

Comments:

Evaluated by: JAS

Evaluation Date: 6/24/2009

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

Test Well:	**MW-2**	**Slug Test:**	**MW-2**
		Test Well:	MW-2
Depth to Static WL:	12.24 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:		Screen length:	5 [ft]
Date:	6/24/2009	Aquifer Thickness:	2.26 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
1	0	13.06	0.82
2	0.25	12.88	0.64
3	0.5	12.76	0.52
4	0.75	12.68	0.44
5	1	12.63	0.39
6	1.25	12.60	0.36
7	1.5	12.58	0.34
8	1.75	12.57	0.32
9	2	12.56	0.32
10	2.25	12.56	0.31
11	2.5	12.55	0.31
12	2.75	12.54	0.30
13	3.25	12.54	0.30
14	3.5	12.53	0.29
15	3.75	12.53	0.29
16	4	12.53	0.29
17	4.61	12.52	0.28
18	4.97	12.52	0.28
19	5.39	12.52	0.28
20	5.81	12.52	0.28
21	6.23	12.51	0.27
22	6.71	12.51	0.27
23	7.73	12.51	0.27
24	8.33	12.51	0.27
25	9.53	12.51	0.27
26	10.19	12.50	0.26
27	10.91	12.50	0.26
28	11.69	12.50	0.26
29	12.47	12.50	0.26
30	13.31	12.50	0.26
31	14.21	12.50	0.26

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

Test Well:	**MW-2**	**Slug Test:**	**MW-2**
		Test Well:	MW-2
Depth to Static WL:	12.24 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:		Screen length:	5 [ft]
Date:	6/24/2009	Aquifer Thickness:	2.26 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
32	15.17	12.50	0.25
33	16.13	12.50	0.25
34	17.21	12.50	0.25
35	18.35	12.49	0.25
36	19.55	12.49	0.25
37	26.63	12.49	0.25
38	28.31	12.49	0.25
39	31.97	12.49	0.24
40	36.11	12.49	0.24
41	38.33	12.48	0.24
42	43.25	12.48	0.24
43	45.89	12.48	0.24
44	48.71	12.48	0.24
45	51.71	12.48	0.24
46	54.89	12.48	0.24
47	61.85	12.48	0.24
48	69.65	12.48	0.24
49	73.85	12.48	0.24
50	78.05	12.47	0.23
51	82.85	12.47	0.23
52	93.05	12.47	0.23
53	99.05	12.47	0.23
54	105.05	12.47	0.23
55	111.05	12.47	0.23
56	117.65	12.47	0.23
57	124.85	12.47	0.23
58	132.65	12.47	0.23
59	157.85	12.47	0.22
60	167.45	12.46	0.22
61	187.849	12.46	0.22
62	199.25	12.46	0.22

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

Test Well:	**MW-2**	**Slug Test:**	**MW-2**
		Test Well:	MW-2
Depth to Static WL:	12.24 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:		Screen length:	5 [ft]
Date:	6/24/2009	Aquifer Thickness:	2.26 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
63	237.05	12.46	0.22
64	251.45	12.46	0.21
65	266.45	12.45	0.21
66	282.049	12.45	0.21
67	298.85	12.45	0.21
68	335.45	12.45	0.21
69	355.849	12.45	0.21
70	376.849	12.44	0.20
71	399.049	12.44	0.20
72	423.049	12.44	0.20
73	448.25	12.43	0.19
74	474.65	12.43	0.19
75	502.849	12.43	0.19
76	532.849	12.43	0.19
77	564.65	12.42	0.18
78	598.249	12.42	0.18

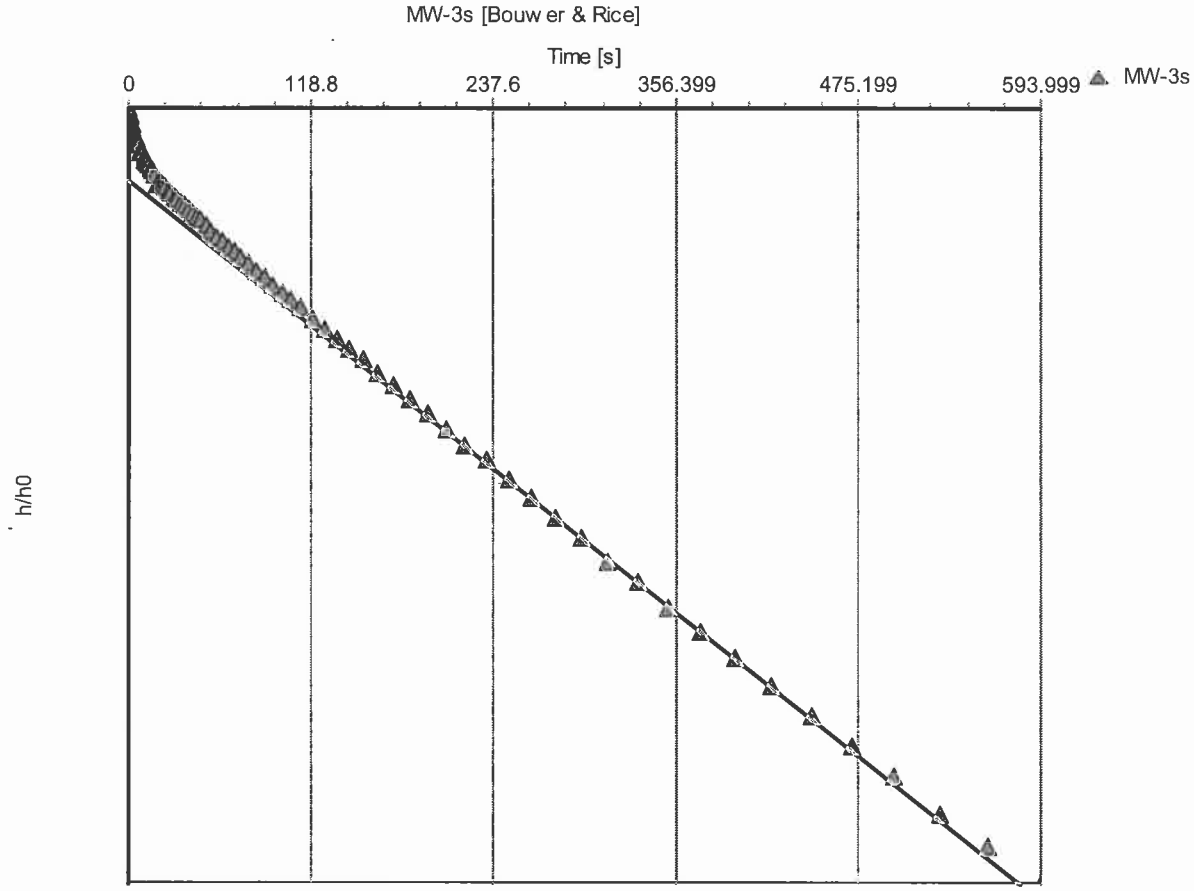
Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Analysis Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill



Slug Test: **MW-3s**

Analysis Method: **Bouwer & Rice**

Analysis Results:

Conductivity: 8.60E-2 [ft/d]

Test parameters:

Test Well:	MW-3s	Aquifer Thickness:	21.24 [ft]
Casing radius:	0.083 [ft]	Gravel Pack Porosity (%)	25
Screen length:	10 [ft]		
Boring radius:	0.1667 [ft]		
r(eff):	0.110 [ft]		

Comments:

Evaluated by: JAS

Evaluation Date: 6/24/2009

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1
Number:
Client: Davidson County Landfill

Test Well:	**MW-3s**	**Slug Test:**	**MW-3s**
		Test Well:	MW-3s
Depth to Static WL:	8.76 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:	DM	Screen length:	10 [ft]
Date:	6/24/2009	Aquifer Thickness:	21.24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
1	0	12.63	3.87
2	0.36	12.56	3.80
3	0.72	12.54	3.78
4	1.14	12.53	3.77
5	1.56	12.51	3.75
6	1.98	12.50	3.74
7	2.46	12.49	3.73
8	3	12.48	3.72
9	3.48	12.47	3.71
10	4.08	12.46	3.70
11	4.68	12.46	3.70
12	5.28	12.45	3.69
13	5.94	12.44	3.68
14	6.659	12.44	3.68
15	7.44	12.42	3.66
16	8.22	12.42	3.66
17	9.06	12.41	3.65
18	9.96	12.40	3.64
19	10.919	12.39	3.63
20	11.879	12.38	3.62
21	12.961	12.37	3.61
22	14.1	12.36	3.60
23	15.3	12.35	3.59
24	16.56	12.35	3.59
25	17.879	12.32	3.56
26	19.32	12.33	3.56
27	20.82	12.32	3.56
28	22.379	12.31	3.55
29	24.06	12.30	3.54
30	25.859	12.30	3.54
31	27.72	12.29	3.53

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

Test Well:	**MW-3s**	**Slug Test:**	**MW-3s**
		Test Well:	MW-3s
Depth to Static WL:	8.76 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:	DM	Screen length:	10 [ft]
Date:	6/24/2009	Aquifer Thickness:	21.24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
32	29.76	12.28	3.52
33	31.859	12.27	3.51
34	34.079	12.26	3.50
35	36.48	12.25	3.49
36	38.999	12.24	3.48
37	41.639	12.23	3.47
38	44.46	12.21	3.45
39	47.46	12.21	3.45
40	50.639	12.19	3.43
41	53.999	12.17	3.41
42	57.599	12.16	3.40
43	61.199	12.14	3.38
44	65.399	12.13	3.37
45	69.599	12.11	3.35
46	73.799	12.09	3.33
47	78.599	12.08	3.32
48	83.999	12.06	3.30
49	88.799	12.04	3.28
50	94.799	12.01	3.25
51	100.799	11.99	3.23
52	106.799	11.97	3.21
53	113.399	11.95	3.19
54	120.599	11.92	3.16
55	128.399	11.89	3.13
56	136.199	11.87	3.11
57	144.599	11.84	3.08
58	153.599	11.81	3.05
59	163.199	11.77	3.01
60	172.799	11.74	2.98
61	183.599	11.70	2.94
62	194.999	11.67	2.91

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

Test Well:	**MW-3s**	**Slug Test:**	**MW-3s**
		Test Well:	MW-3s
Depth to Static WL:	8.76 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:	DM	Screen length:	10 [ft]
Date:	6/24/2009	Aquifer Thickness:	21.24 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
63	206.999	11.63	2.87
64	219.599	11.59	2.83
65	232.799	11.55	2.79
66	247.199	11.51	2.75
67	262.199	11.46	2.70
68	277.799	11.42	2.66
69	294.599	11.37	2.61
70	312.599	11.32	2.55
71	331.199	11.27	2.51
72	351.599	11.21	2.45
73	372.599	11.16	2.40
74	394.799	11.11	2.35
75	418.799	11.05	2.29
76	443.999	10.99	2.23
77	470.399	10.94	2.18
78	498.599	10.88	2.12
79	528.599	10.81	2.05
80	560.399	10.75	1.99
81	593.999	10.69	1.93

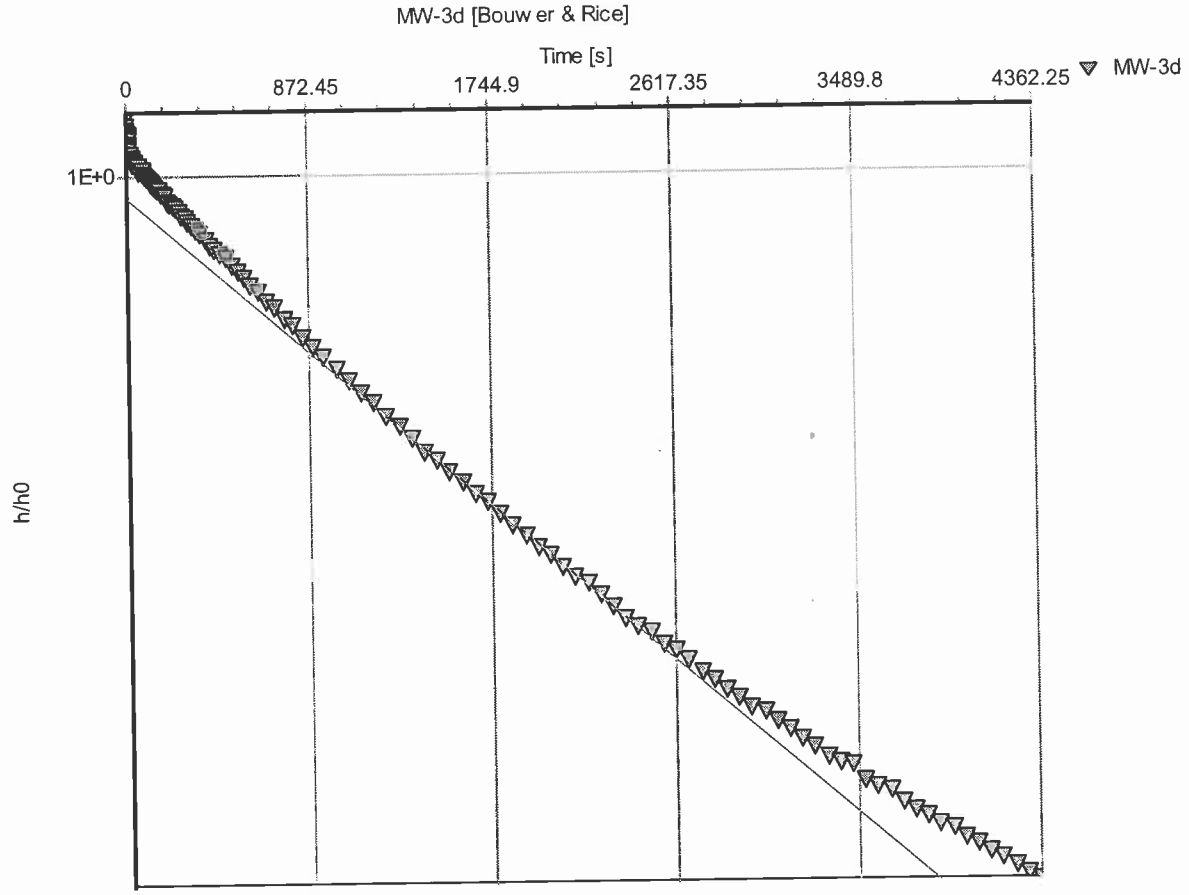
Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Analysis Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill



Slug Test: **MW-3d**

Analysis Method: **Bouwer & Rice**

Analysis Results:

Conductivity: 3.42E-2 [ft/d]

Test parameters:

Test Well:	MW-3d	Aquifer Thickness:	100 [ft]
Casing radius:	0.083 [ft]	Gravel Pack Porosity (%)	25
Screen length:	5 [ft]		
Boring radius:	0.1667 [ft]		
r(eff):	0.110 [ft]		

Comments: Bedrock Well

Evaluated by: JAS

Evaluation Date: 6/24/2009

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

Test Well:	**MW-3d**	**Slug Test:**	**MW-3d**
		Test Well:	MW-3d
Depth to Static WL:	8.63 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:	DM	Screen length:	5 [ft]
Date:	6/24/2009	Aquifer Thickness:	100 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
1	0	12.06	3.42
2	0.25	12.32	3.69
3	0.61	12.32	3.69
4	0.97	12.30	3.67
5	1.39	12.29	3.66
6	1.81	12.26	3.63
7	2.23	12.26	3.63
8	2.71	12.25	3.62
9	3.25	12.24	3.61
10	3.73	12.24	3.61
11	4.33	12.23	3.59
12	4.93	12.23	3.60
13	5.53	12.22	3.59
14	6.19	12.21	3.58
15	6.91	12.20	3.57
16	7.69	12.19	3.56
17	8.47	12.18	3.55
18	9.31	12.17	3.54
19	10.21	12.17	3.54
20	11.17	12.16	3.53
21	12.13	12.16	3.53
22	13.21	12.15	3.52
23	14.35	12.15	3.51
24	15.55	12.14	3.51
25	16.81	12.14	3.51
26	18.13	12.13	3.50
27	19.57	12.13	3.50
28	21.07	12.13	3.50
29	22.63	12.13	3.50
30	24.31	12.13	3.50
31	26.11	12.12	3.49

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

Test Well:	**MW-3d**	**Slug Test:**	**MW-3d**
		Test Well:	MW-3d
Depth to Static WL:	8.63 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:	DM	Screen length:	5 [ft]
Date:	6/24/2009	Aquifer Thickness:	100 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
32	27.97	12.12	3.49
33	30.01	12.11	3.48
34	32.11	12.12	3.48
35	34.33	12.11	3.48
36	36.73	12.11	3.48
37	39.25	12.10	3.47
38	41.89	12.10	3.47
39	44.71	12.10	3.47
40	47.71	12.10	3.47
41	50.89	12.09	3.46
42	54.25	12.08	3.45
43	57.85	12.09	3.46
44	61.45	12.07	3.44
45	65.65	12.08	3.45
46	69.85	12.08	3.45
47	74.05	12.08	3.45
48	78.85	12.06	3.43
49	84.25	12.06	3.42
50	89.05	12.05	3.42
51	95.05	12.05	3.42
52	101.05	12.04	3.41
53	107.05	12.04	3.40
54	113.649	12.03	3.40
55	120.85	12.02	3.39
56	128.649	12.02	3.39
57	136.45	12.01	3.38
58	144.85	12.00	3.37
59	153.85	12.00	3.37
60	163.45	11.98	3.35
61	173.05	11.98	3.35
62	183.85	11.97	3.34

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

Test Well:	**MW-3d**	**Slug Test:**	**MW-3d**
		Test Well:	MW-3d
Depth to Static WL:	8.63 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:	DM	Screen length:	5 [ft]
Date:	6/24/2009	Aquifer Thickness:	100 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
63	195.25	11.95	3.32
64	207.25	11.95	3.31
65	219.85	11.93	3.30
66	233.05	11.93	3.30
67	247.45	11.91	3.28
68	262.45	11.90	3.27
69	278.05	11.89	3.26
70	294.85	11.88	3.25
71	312.85	11.86	3.23
72	331.45	11.84	3.21
73	351.85	11.83	3.20
74	372.85	11.81	3.18
75	395.05	11.79	3.16
76	419.05	11.77	3.14
77	444.25	11.75	3.12
78	470.65	11.74	3.11
79	498.85	11.71	3.08
80	528.85	11.69	3.06
81	560.65	11.67	3.03
82	594.25	11.64	3.01
83	630.25	11.62	2.99
84	666.25	11.58	2.95
85	708.25	11.57	2.93
86	750.25	11.52	2.89
87	792.25	11.50	2.87
88	840.25	11.46	2.83
89	894.25	11.43	2.80
90	942.25	11.40	2.76
91	1002.25	11.36	2.73
92	1062.25	11.32	2.69
93	1122.25	11.28	2.65

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

Test Well:	**MW-3d**	**Slug Test:**	**MW-3d**
		Test Well:	MW-3d
Depth to Static WL:	8.63 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:	DM	Screen length:	5 [ft]
Date:	6/24/2009	Aquifer Thickness:	100 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
94	1182.25	11.25	2.62
95	1242.25	11.21	2.58
96	1302.25	11.18	2.55
97	1362.25	11.14	2.51
98	1422.25	11.10	2.47
99	1482.25	11.08	2.45
100	1542.25	11.04	2.41
101	1602.25	11.01	2.38
102	1662.25	10.98	2.35
103	1722.25	10.96	2.33
104	1782.25	10.93	2.30
105	1842.25	10.90	2.27
106	1902.25	10.87	2.24
107	1962.25	10.84	2.21
108	2022.25	10.82	2.18
109	2082.25	10.79	2.16
110	2142.25	10.76	2.13
111	2202.25	10.74	2.11
112	2262.25	10.72	2.09
113	2322.25	10.69	2.06
114	2382.25	10.66	2.03
115	2442.25	10.64	2.01
116	2502.25	10.63	2.00
117	2562.25	10.60	1.97
118	2622.25	10.59	1.96
119	2682.25	10.56	1.93
120	2742.25	10.53	1.90
121	2802.25	10.52	1.88
122	2862.25	10.49	1.86
123	2922.25	10.48	1.85
124	2982.25	10.46	1.82

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

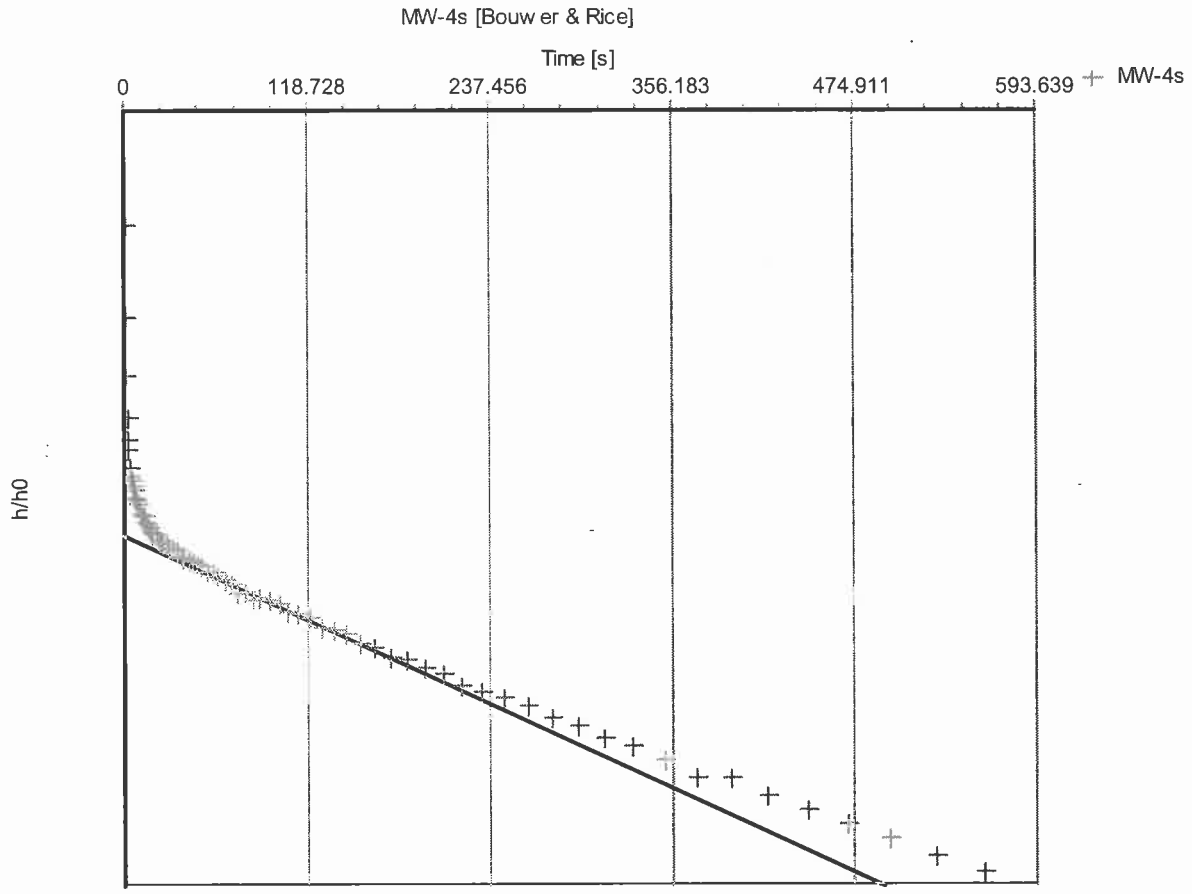
Test Well:	**MW-3d**	**Slug Test:**	**MW-3d**
		Test Well:	MW-3d
Depth to Static WL:	8.63 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:	DM	Screen length:	5 [ft]
Date:	6/24/2009	Aquifer Thickness:	100 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
125	3042.25	10.45	1.82
126	3102.25	10.43	1.80
127	3162.25	10.41	1.78
128	3222.25	10.39	1.76
129	3282.25	10.37	1.74
130	3342.25	10.35	1.72
131	3402.25	10.34	1.71
132	3462.25	10.34	1.71
133	3522.25	10.31	1.67
134	3582.25	10.29	1.66
135	3642.25	10.28	1.65
136	3702.25	10.26	1.63
137	3762.25	10.25	1.62
138	3822.25	10.24	1.60
139	3882.25	10.22	1.59
140	3942.25	10.21	1.58
141	4002.25	10.20	1.56
142	4062.25	10.18	1.55
143	4122.25	10.17	1.54
144	4182.25	10.16	1.53
145	4242.25	10.14	1.51
146	4302.25	10.13	1.50
147	4362.25	10.12	1.49

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Analysis Report

Project:	Davidson Co. Phase 2 Area 1
Number:	
Client:	Davidson County Landfill



Slug Test: **MW-4s**

Analysis Method: **Bouwer & Rice**

Analysis Results: Conductivity: 6.22E-2 [ft/d]

Test parameters:				
	Test Well:	MW-4s	Aquifer Thickness:	1.19 [ft]
	Casing radius:	0.083 [ft]	Gravel Pack Porosity (%)	25
	Screen length:	10 [ft]		
	Boring radius:	0.1667 [ft]		
	r(eff):	0.110 [ft]		

Comments:

Evaluated by: JAS

Evaluation Date: 6/24/2009

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

Test Well:	**MW-4s**	**Slug Test:**	**MW-4s**
		Test Well:	MW-4s
Depth to Static WL:	19.81 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:	DM	Screen length:	10 [ft]
Date:	6/24/2009	Aquifer Thickness:	1.19 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
1	0	21.11	1.30
2	0.36	21.06	1.25
3	0.78	20.83	1.02
4	1.2	20.67	0.86
5	1.62	20.59	0.78
6	2.1	20.53	0.72
7	2.64	20.50	0.69
8	3.12	20.49	0.68
9	3.72	20.47	0.66
10	4.32	20.46	0.65
11	4.92	20.45	0.64
12	5.58	20.45	0.64
13	6.3	20.44	0.63
14	7.08	20.43	0.62
15	7.86	20.43	0.62
16	8.7	20.43	0.62
17	9.6	20.43	0.62
18	10.56	20.42	0.61
19	11.52	20.41	0.60
20	12.6	20.41	0.60
21	13.74	20.41	0.60
22	14.94	20.41	0.60
23	16.2	20.40	0.59
24	17.52	20.40	0.59
25	18.96	20.40	0.59
26	20.46	20.40	0.59
27	22.02	20.39	0.58
28	23.7	20.39	0.58
29	25.5	20.39	0.58
30	27.36	20.39	0.58
31	29.4	20.38	0.57

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

Test Well:	**MW-4s**	**Slug Test:**	**MW-4s**
		Test Well:	MW-4s
Depth to Static WL:	19.81 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:	DM	Screen length:	10 [ft]
Date:	6/24/2009	Aquifer Thickness:	1.19 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
32	31.5	20.38	0.57
33	33.72	20.38	0.57
34	36.12	20.37	0.56
35	38.64	20.37	0.56
36	41.28	20.37	0.56
37	44.1	20.37	0.56
38	47.1	20.37	0.55
39	50.28	20.36	0.55
40	53.64	20.36	0.55
41	57.24	20.36	0.55
42	60.84	20.35	0.54
43	65.04	20.35	0.54
44	69.24	20.35	0.54
45	73.44	20.34	0.53
46	78.24	20.34	0.53
47	83.642	20.33	0.52
48	88.44	20.33	0.52
49	94.44	20.33	0.52
50	100.44	20.33	0.52
51	106.44	20.32	0.51
52	113.04	20.32	0.51
53	120.24	20.31	0.50
54	128.04	20.31	0.50
55	135.84	20.30	0.49
56	144.24	20.30	0.49
57	153.24	20.29	0.48
58	162.84	20.29	0.48
59	172.44	20.28	0.47
60	183.24	20.28	0.47
61	194.64	20.27	0.46
62	206.64	20.27	0.46

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

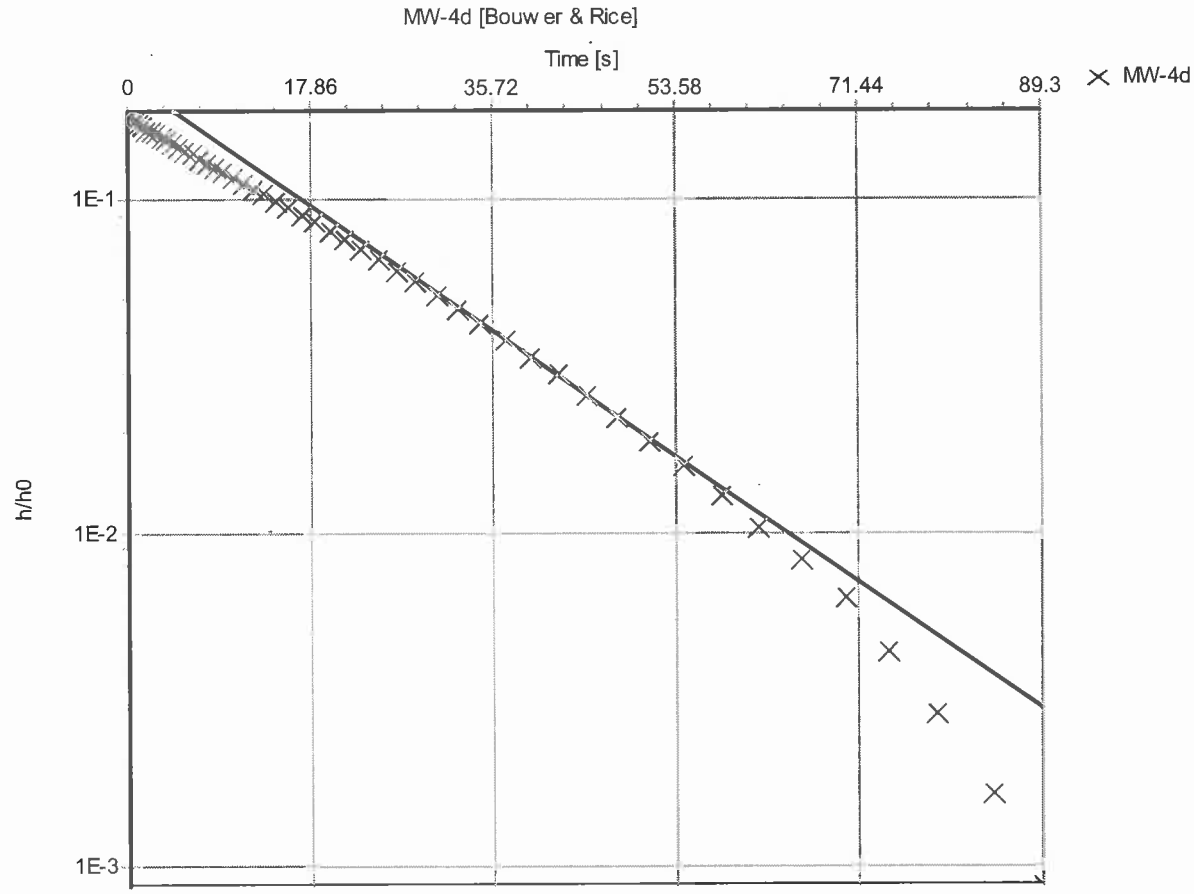
Test Well:	**MW-4s**	**Slug Test:**	**MW-4s**
		Test Well:	MW-4s
Depth to Static WL:	19.81 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:	DM	Screen length:	10 [ft]
Date:	6/24/2009	Aquifer Thickness:	1.19 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
63	219.24	20.26	0.45
64	232.44	20.25	0.44
65	246.84	20.25	0.44
66	261.84	20.24	0.43
67	277.44	20.23	0.42
68	294.24	20.23	0.42
69	312.24	20.22	0.41
70	330.84	20.21	0.40
71	351.24	20.20	0.39
72	372.251	20.19	0.38
73	394.44	20.19	0.38
74	418.44	20.18	0.37
75	443.64	20.17	0.36
76	470.04	20.16	0.35
77	498.24	20.15	0.34
78	528.24	20.14	0.33
79	560.04	20.13	0.32
80	593.639	20.12	0.31

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Analysis Report

Project:	Davidson Co. Phase 2 Area 1
Number:	
Client:	Davidson County Landfill



Slug Test: **MW-4d**

Analysis Method: **Bouwer & Rice**

Analysis Results: Conductivity: 7.55E+0 [ft/d]

Test parameters:				
	Test Well:	MW-4d	Aquifer Thickness:	100 [ft]
	Casing radius:	0.083 [ft]	Gravel Pack Porosity (%)	25
	Screen length:	5 [ft]		
	Boring radius:	0.1667 [ft]		
	r(eff):	0.110 [ft]		

Comments: Bedrock Well

Evaluated by: JAS

Evaluation Date: 6/24/2009

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

Test Well:	**MW-4d**	**Slug Test:**	**MW-4d**
		Test Well:	MW-4d
Depth to Static WL:	19.48 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:	DM	Screen length:	5 [ft]
Date:	6/24/2009	Aquifer Thickness:	100 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
1	0	23.25	3.77
2	0.25	23.06	3.58
3	0.5	22.83	3.35
4	0.86	22.82	3.34
5	1.22	22.77	3.29
6	1.64	22.71	3.23
7	2.06	22.62	3.14
8	2.48	22.60	3.12
9	2.96	22.54	3.06
10	3.5	22.47	2.99
11	3.98	22.42	2.94
12	4.58	22.35	2.86
13	5.18	22.28	2.80
14	5.78	22.21	2.73
15	6.44	22.15	2.67
16	7.16	22.07	2.59
17	7.94	21.99	2.51
18	8.72	21.92	2.44
19	9.56	21.84	2.36
20	10.46	21.75	2.27
21	11.42	21.67	2.19
22	12.38	21.58	2.10
23	13.46	21.50	2.02
24	14.6	21.41	1.93
25	15.8	21.32	1.84
26	17.06	21.23	1.75
27	18.38	21.14	1.66
28	19.82	21.04	1.56
29	21.32	20.95	1.47
30	22.88	20.86	1.38
31	24.56	20.76	1.28

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

Test Well:	**MW-4d**	**Slug Test:**	**MW-4d**
		Test Well:	MW-4d
Depth to Static WL:	19.48 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:	DM	Screen length:	5 [ft]
Date:	6/24/2009	Aquifer Thickness:	100 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
32	26.36	20.67	1.19
33	28.22	20.58	1.10
34	30.26	20.48	1.00
35	32.36	20.39	0.91
36	34.58	20.31	0.83
37	36.98	20.22	0.74
38	39.5	20.14	0.66
39	42.14	20.06	0.58
40	44.96	19.98	0.50
41	47.96	19.91	0.43
42	51.14	19.85	0.36
43	54.5	19.79	0.31
44	58.1	19.73	0.25
45	61.7	19.68	0.20
46	65.9	19.64	0.16
47	70.1	19.60	0.12
48	74.303	19.57	0.09
49	79.1	19.54	0.06
50	84.5	19.51	0.03
51	89.3	19.50	0.02

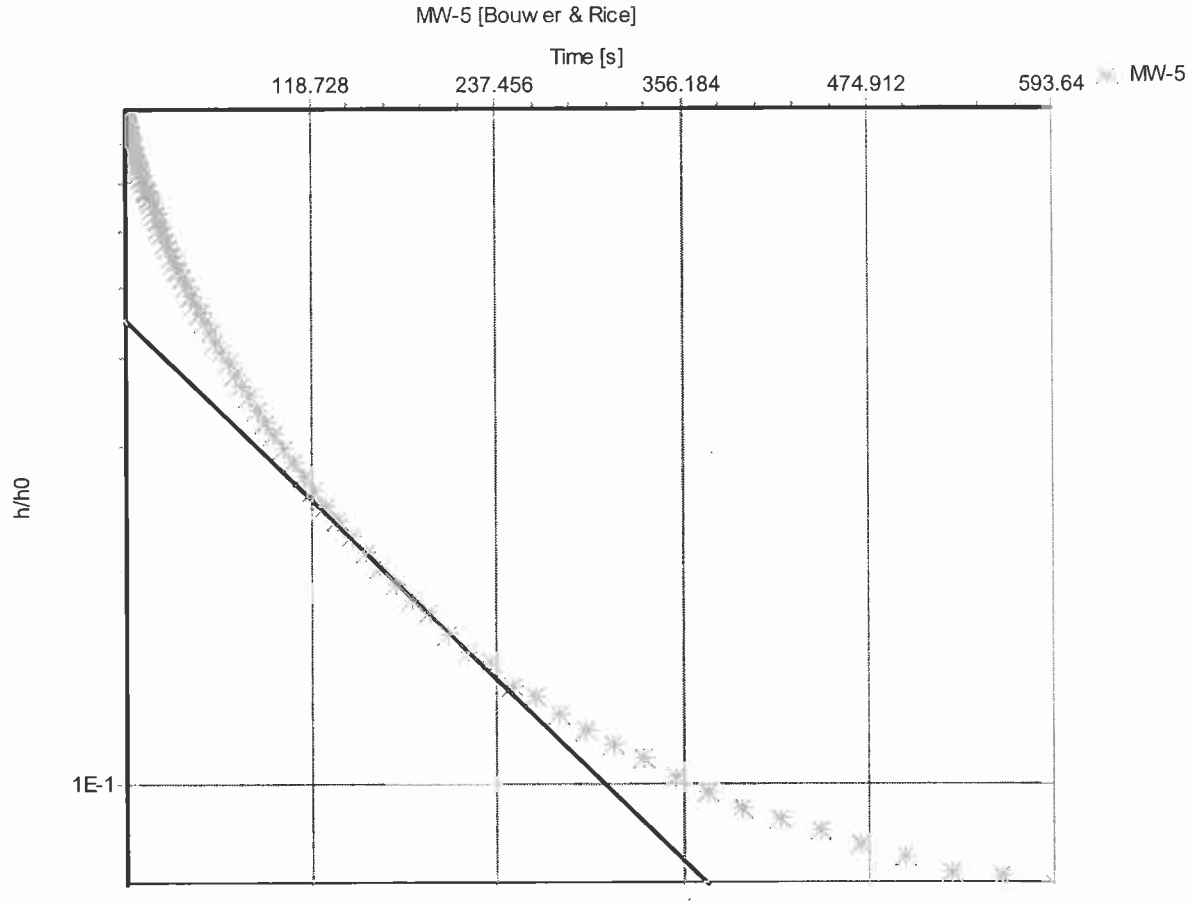
Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Analysis Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill



Slug Test: **MW-5**

Analysis Method: **Bouwer & Rice**

Analysis Results:

Conductivity: 4.31E-1 [ft/d]

Test parameters:

Test Well:	MW-5	Aquifer Thickness:	30 [ft]
Casing radius:	0.083 [ft]	Gravel Pack Porosity (%)	25
Screen length:	10 [ft]		
Boring radius:	0.1667 [ft]		
r(eff):	0.110 [ft]		

Comments:

Evaluated by:

Evaluation Date: 6/24/2009

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

Test Well:	**MW-5**	**Slug Test:**	**MW-5**
		Test Well:	MW-5
Depth to Static WL:	26.21 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:	DM	Screen length:	10 [ft]
Date:	6/24/2009	Aquifer Thickness:	30 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
1	0	29.43	3.22
2	0.361	29.03	2.82
3	0.78	29.09	2.88
4	1.2	29.01	2.80
5	1.62	28.98	2.77
6	2.1	28.94	2.73
7	2.64	28.92	2.71
8	3.12	28.87	2.66
9	3.72	28.85	2.63
10	4.32	28.82	2.61
11	4.92	28.77	2.56
12	5.58	28.75	2.54
13	6.3	28.70	2.49
14	7.08	28.67	2.46
15	7.86	28.64	2.43
16	8.7	28.60	2.39
17	9.6	28.56	2.35
18	10.56	28.52	2.31
19	11.52	28.48	2.27
20	12.6	28.42	2.21
21	13.74	28.41	2.20
22	14.94	28.37	2.16
23	16.2	28.34	2.13
24	17.52	28.30	2.09
25	18.96	28.26	2.05
26	20.46	28.22	2.01
27	22.02	28.17	1.96
28	23.7	28.13	1.92
29	25.5	28.09	1.88
30	27.36	28.05	1.84
31	29.4	28.01	1.79

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

Test Well:	**MW-5**	**Slug Test:**	**MW-5**
		Test Well:	MW-5
Depth to Static WL:	26.21 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:	DM	Screen length:	10 [ft]
Date:	6/24/2009	Aquifer Thickness:	30 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
32	31.5	27.96	1.75
33	33.72	27.92	1.71
34	36.12	27.87	1.66
35	38.64	27.84	1.63
36	41.28	27.79	1.57
37	44.1	27.74	1.53
38	47.1	27.70	1.49
39	50.28	27.65	1.44
40	53.64	27.61	1.40
41	57.24	27.56	1.35
42	60.84	27.52	1.31
43	65.04	27.48	1.27
44	69.24	27.43	1.22
45	73.44	27.39	1.18
46	78.24	27.34	1.13
47	83.64	27.30	1.09
48	88.44	27.25	1.04
49	94.44	27.21	1.00
50	100.44	27.17	0.96
51	106.44	27.13	0.92
52	113.04	27.09	0.88
53	120.24	27.05	0.84
54	128.04	27.01	0.80
55	135.84	26.97	0.76
56	144.24	26.93	0.72
57	153.24	26.90	0.68
58	162.84	26.86	0.65
59	172.44	26.83	0.62
60	183.24	26.80	0.59
61	194.64	26.77	0.56
62	206.64	26.74	0.52

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

Test Well:	**MW-5**	**Slug Test:**	**MW-5**
		Test Well:	MW-5
Depth to Static WL:	26.21 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:	DM	Screen length:	10 [ft]
Date:	6/24/2009	Aquifer Thickness:	30 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
63	219.253	26.70	0.49
64	232.44	26.69	0.48
65	246.84	26.65	0.44
66	261.84	26.64	0.43
67	277.44	26.62	0.40
68	294.24	26.59	0.38
69	312.24	26.58	0.37
70	330.84	26.56	0.35
71	351.24	26.54	0.33
72	372.24	26.53	0.31
73	394.44	26.51	0.30
74	418.44	26.50	0.29
75	443.64	26.49	0.28
76	470.04	26.48	0.27
77	498.24	26.47	0.25
78	528.24	26.45	0.24
79	560.04	26.45	0.24
80	593.64	26.44	0.23

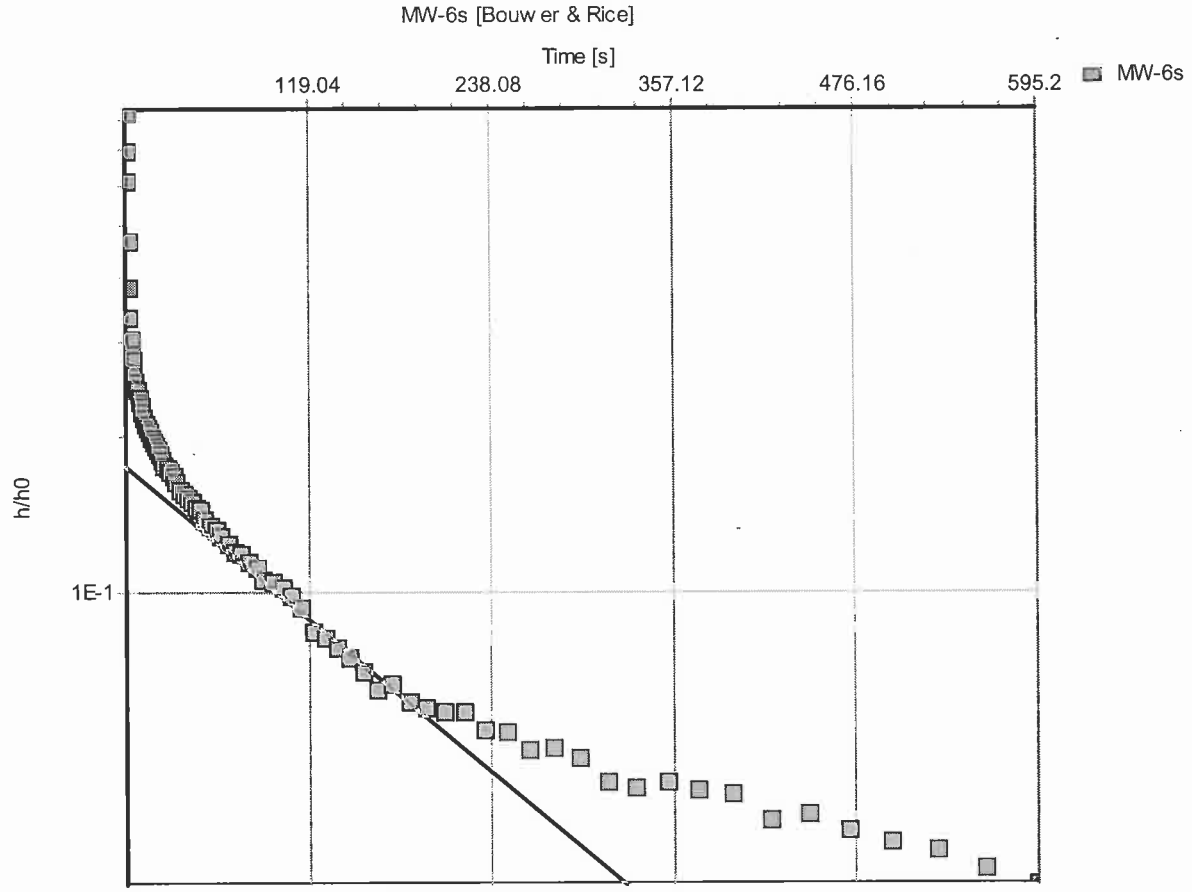
Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Analysis Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill



Slug Test: **MW-6s**

Analysis Method: **Bouwer & Rice**

Analysis Results:

Conductivity: 4.64E-1 [ft/d]

Test parameters:

Test Well:	MW-6s	Aquifer Thickness:	20 [ft]
Casing radius:	0.083 [ft]	Gravel Pack Porosity (%)	25
Screen length:	10 [ft]		
Boring radius:	0.1667 [ft]		
r(eff):	0.110 [ft]		

Comments:

Evaluated by: JAS

Evaluation Date: 6/24/2009

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

Test Well:	**MW-6s**	**Slug Test:**	**MW-6s**
		Test Well:	MW-6s
Depth to Static WL:	33.38 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:	DM	Screen length:	10 [ft]
Date:	6/11/2009	Aquifer Thickness:	20 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
1	0	35.36	1.98
2	0.256	35.04	1.66
3	0.951	35.01	1.63
4	1.201	34.76	1.38
5	1.921	34.59	1.21
6	2.341	34.31	0.93
7	2.761	34.14	0.76
8	3.181	34.05	0.66
9	3.661	33.98	0.60
10	4.201	33.95	0.57
11	4.681	33.93	0.55
12	5.281	33.90	0.52
13	5.881	33.90	0.52
14	6.481	33.88	0.50
15	7.141	33.87	0.49
16	7.861	33.86	0.48
17	8.641	33.85	0.46
18	9.421	33.84	0.46
19	10.261	33.83	0.45
20	11.161	33.82	0.44
21	12.121	33.81	0.43
22	13.081	33.80	0.41
23	14.161	33.79	0.41
24	15.301	33.78	0.40
25	16.501	33.77	0.39
26	17.761	33.77	0.38
27	19.081	33.76	0.38
28	20.521	33.75	0.37
29	22.021	33.75	0.36
30	23.581	33.73	0.35
31	25.261	33.73	0.35

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

Test Well:	**MW-6s**	**Slug Test:**	**MW-6s**
		Test Well:	MW-6s
Depth to Static WL:	33.38 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:	DM	Screen length:	10 [ft]
Date:	6/11/2009	Aquifer Thickness:	20 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
32	27.061	33.72	0.34
33	28.921	33.72	0.34
34	30.961	33.71	0.33
35	33.061	33.70	0.32
36	35.281	33.69	0.31
37	37.681	33.69	0.31
38	40.201	33.68	0.30
39	42.841	33.68	0.29
40	45.661	33.67	0.29
41	48.661	33.66	0.28
42	51.841	33.65	0.27
43	55.201	33.65	0.27
44	58.801	33.64	0.26
45	62.4	33.63	0.25
46	66.601	33.63	0.24
47	70.801	33.62	0.24
48	75.001	33.61	0.23
49	79.801	33.61	0.23
50	85.201	33.60	0.22
51	90.001	33.59	0.21
52	96.001	33.59	0.21
53	102.001	33.58	0.20
54	108.001	33.58	0.20
55	114.6	33.57	0.18
56	121.801	33.55	0.17
57	129.6	33.54	0.16
58	137.4	33.53	0.15
59	145.801	33.53	0.15
60	154.801	33.52	0.14
61	164.4	33.51	0.13
62	174.001	33.51	0.13

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

Test Well:	**MW-6s**	**Slug Test:**	**MW-6s**
		Test Well:	MW-6s
Depth to Static WL:	33.38 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:	DM	Screen length:	10 [ft]
Date:	6/11/2009	Aquifer Thickness:	20 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
63	184.8	33.50	0.12
64	196.201	33.50	0.12
65	208.201	33.50	0.12
66	220.8	33.50	0.12
67	234.001	33.49	0.11
68	248.4	33.49	0.11
69	263.4	33.48	0.10
70	279	33.48	0.10
71	295.8	33.48	0.10
72	313.8	33.47	0.09
73	332.4	33.46	0.08
74	352.8	33.47	0.09
75	373.8	33.46	0.08
76	396	33.46	0.08
77	420	33.45	0.07
78	445.201	33.46	0.07
79	471.6	33.45	0.07
80	499.8	33.45	0.07
81	529.8	33.44	0.06
82	561.601	33.44	0.06
83	595.2	33.44	0.05

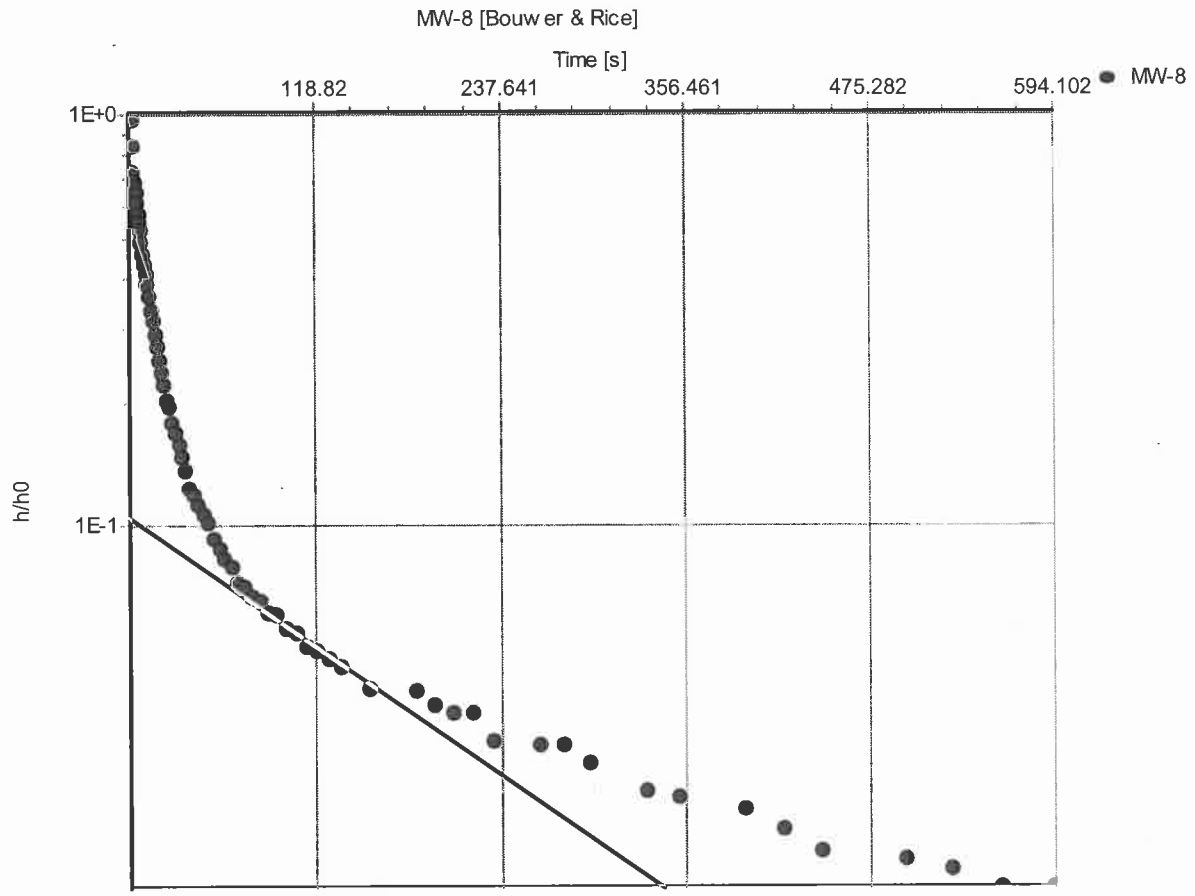
Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Analysis Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill



Slug Test: **MW-8**

Analysis Method: **Bouwer & Rice**

Analysis Results:

Conductivity: 4.90E-1 [ft/d]

Test parameters:

Test Well:	MW-8	Aquifer Thickness:	100 [ft]
Casing radius:	0.083 [ft]	Gravel Pack Porosity (%)	25
Screen length:	10 [ft]		
Boring radius:	0.1667 [ft]		
r(eff):	0.110 [ft]		

Comments:

Evaluated by: JAS

Evaluation Date: 6/24/2009

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

Test Well:	**MW-8**	**Slug Test:**	**MW-8**
		Test Well:	MW-8
Depth to Static WL:	47.12 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:	DM	Screen length:	10 [ft]
Date:	6/11/2009	Aquifer Thickness:	100 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
1	0	48.49	1.37
2	0.202	48.47	1.35
3	0.462	48.49	1.37
4	0.822	48.47	1.35
5	1.662	48.51	1.39
6	2.082	48.45	1.33
7	2.562	48.27	1.15
8	3.102	48.11	0.99
9	3.582	48.06	0.94
10	4.182	48.04	0.92
11	4.782	48.01	0.89
12	5.382	47.96	0.84
13	6.042	47.90	0.78
14	6.762	47.87	0.75
15	7.542	47.83	0.71
16	8.322	47.79	0.67
17	9.162	47.75	0.63
18	10.062	47.71	0.59
19	11.022	47.68	0.56
20	11.982	47.65	0.53
21	13.062	47.61	0.49
22	14.202	47.58	0.46
23	15.402	47.55	0.43
24	16.662	47.52	0.40
25	17.982	47.49	0.37
26	19.422	47.46	0.34
27	20.922	47.44	0.32
28	22.482	47.42	0.30
29	24.162	47.40	0.28
30	25.962	47.39	0.27
31	27.822	47.36	0.24

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

Test Well:	**MW-8**	**Slug Test:**	**MW-8**
		Test Well:	MW-8
Depth to Static WL:	47.12 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:	DM	Screen length:	10 [ft]
Date:	6/11/2009	Aquifer Thickness:	100 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
32	29.862	47.35	0.23
33	31.962	47.34	0.22
34	34.182	47.32	0.20
35	36.582	47.31	0.19
36	39.102	47.29	0.17
37	41.742	47.28	0.16
38	44.562	47.27	0.15
39	47.562	47.27	0.15
40	50.742	47.26	0.14
41	54.102	47.25	0.13
42	57.702	47.24	0.12
43	61.302	47.23	0.11
44	65.502	47.23	0.11
45	69.702	47.22	0.10
46	73.902	47.22	0.10
47	78.702	47.21	0.09
48	84.102	47.21	0.09
49	88.902	47.20	0.08
50	94.902	47.20	0.08
51	100.902	47.20	0.08
52	106.902	47.20	0.08
53	113.502	47.19	0.07
54	120.702	47.19	0.07
55	128.502	47.19	0.07
56	136.302	47.18	0.06
57	153.702	47.18	0.05
58	183.702	47.17	0.05
59	195.102	47.17	0.05
60	207.102	47.17	0.05
61	219.702	47.17	0.05
62	232.902	47.16	0.04

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

Test Well:	**MW-8**	**Slug Test:**	**MW-8**
		Test Well:	MW-8
Depth to Static WL:	47.12 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:	DM	Screen length:	10 [ft]
Date:	6/11/2009	Aquifer Thickness:	100 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
63	262.302	47.16	0.04
64	277.902	47.16	0.04
65	294.702	47.16	0.04
66	331.302	47.15	0.03
67	351.702	47.15	0.03
68	394.902	47.15	0.03
69	418.902	47.15	0.03
70	444.102	47.14	0.02
71	498.702	47.14	0.02
72	528.702	47.14	0.02
73	560.502	47.14	0.02
74	594.102	47.14	0.02

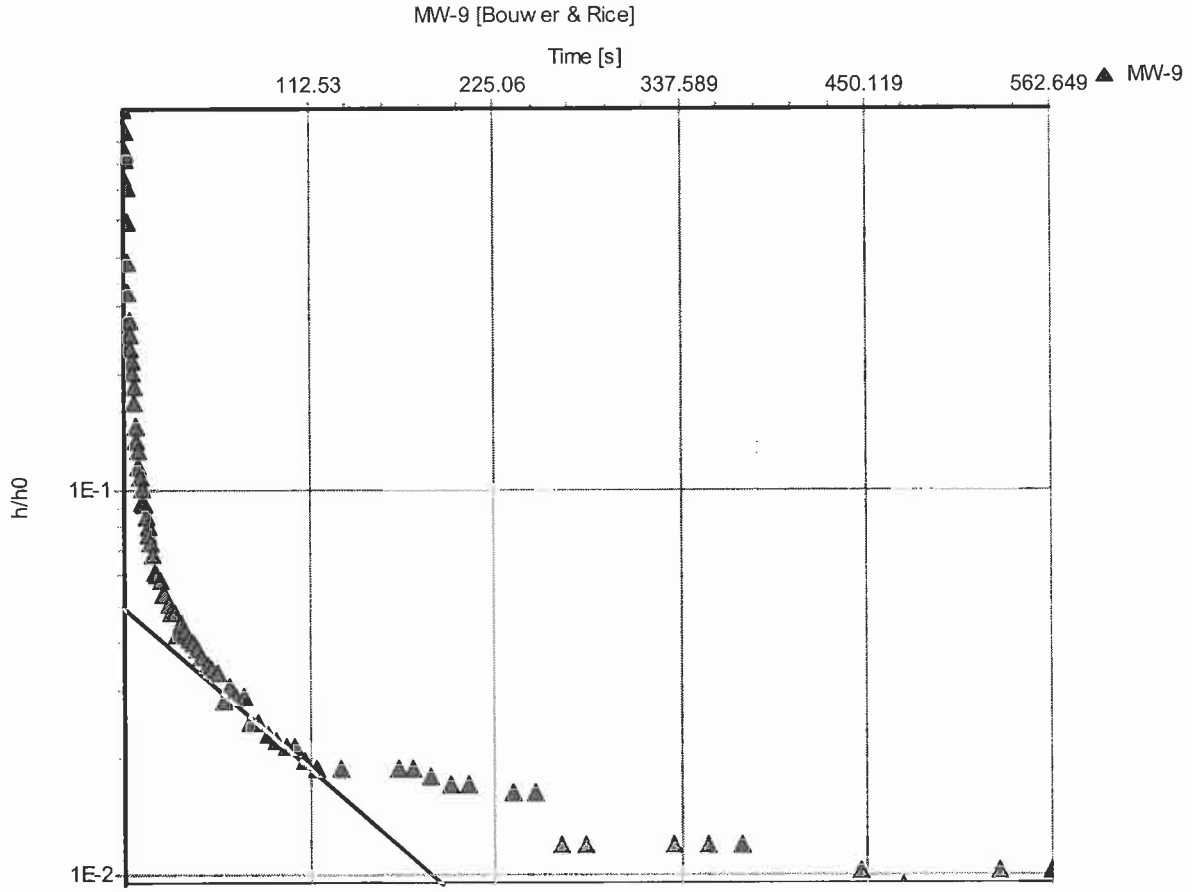
Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Analysis Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill



Slug Test: **MW-9**

Analysis Method: **Bouwer & Rice**

Analysis Results:

Conductivity: 7.20E-1 [ft/d]

Test parameters:

Test Well:	MW-9	Aquifer Thickness:	100 [ft]
Casing radius:	0.083 [ft]	Gravel Pack Porosity (%)	25
Screen length:	10 [ft]		
Boring radius:	0.1667 [ft]		
r(eff):	0.110 [ft]		

Comments:

Evaluated by: JAS

Evaluation Date: 6/24/2009

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

Test Well:	**MW-9**	**Slug Test:**	**MW-9**
		Test Well:	MW-9
Depth to Static WL:	18.62 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:	DM	Screen length:	10 [ft]
Date:	6/11/2009	Aquifer Thickness:	100 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
1	0	19.78	1.16
2	0.25	19.75	1.13
3	0.5	19.37	0.75
4	0.75	19.33	0.71
5	1	19.45	0.83
6	1.25	19.50	0.88
7	1.5	19.60	0.98
8	1.75	19.49	0.87
9	2	19.32	0.70
10	2.25	19.20	0.57
11	2.609	19.07	0.45
12	2.97	19.00	0.38
13	3.389	18.94	0.32
14	3.809	18.92	0.30
15	4.229	18.89	0.27
16	4.71	18.87	0.25
17	5.249	18.86	0.24
18	5.729	18.84	0.22
19	6.329	18.82	0.20
20	6.929	18.79	0.17
21	7.529	18.78	0.16
22	8.189	18.77	0.15
23	8.909	18.75	0.13
24	9.689	18.75	0.13
25	10.469	18.74	0.12
26	11.309	18.73	0.11
27	12.209	18.73	0.11
28	13.169	18.72	0.10
29	14.129	18.71	0.09
30	15.209	18.71	0.09
31	16.349	18.70	0.08

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

Test Well:	**MW-9**	**Slug Test:**	**MW-9**
		Test Well:	MW-9
Depth to Static WL:	18.62 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:	DM	Screen length:	10 [ft]
Date:	6/11/2009	Aquifer Thickness:	100 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
32	17.549	18.70	0.08
33	18.809	18.69	0.07
34	20.129	18.69	0.07
35	21.57	18.69	0.07
36	23.07	18.68	0.06
37	24.629	18.68	0.06
38	26.309	18.68	0.06
39	28.109	18.68	0.06
40	29.969	18.68	0.06
41	32.009	18.67	0.05
42	34.109	18.67	0.05
43	36.329	18.67	0.05
44	38.729	18.67	0.05
45	41.249	18.67	0.05
46	43.889	18.67	0.04
47	46.709	18.66	0.04
48	49.709	18.66	0.04
49	52.889	18.66	0.04
50	56.249	18.66	0.04
51	59.849	18.65	0.03
52	63.449	18.66	0.04
53	67.649	18.65	0.03
54	71.849	18.65	0.03
55	76.049	18.65	0.03
56	80.849	18.65	0.03
57	86.249	18.65	0.03
58	91.049	18.65	0.03
59	97.049	18.65	0.02
60	103.049	18.65	0.02
61	109.049	18.64	0.02
62	115.649	18.64	0.02

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

Test Well:	**MW-9**	**Slug Test:**	**MW-9**
		Test Well:	MW-9
Depth to Static WL:	18.62 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:	DM	Screen length:	10 [ft]
Date:	6/11/2009	Aquifer Thickness:	100 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
63	122.859	18.63	0.01
64	130.649	18.64	0.02
65	138.459	18.64	0.02
66	146.849	18.64	0.02
67	155.849	18.64	0.02
68	165.449	18.64	0.02
69	175.049	18.64	0.02
70	185.849	18.64	0.02
71	197.249	18.64	0.02
72	209.249	18.64	0.02
73	221.849	18.63	0.01
74	235.049	18.64	0.02
75	249.449	18.64	0.02
76	264.449	18.63	0.01
77	280.049	18.63	0.01
78	296.849	18.63	0.01
79	314.849	18.63	0.01
80	333.449	18.63	0.01
81	353.849	18.63	0.01
82	374.849	18.63	0.01
83	397.049	18.63	0.01
84	421.049	18.63	0.01
85	446.249	18.63	0.01
86	472.649	18.63	0.01
87	500.849	18.63	0.01
88	530.849	18.63	0.01
89	562.649	18.63	0.01
90	596.249	18.64	0.02

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

Test Well:	**MW-9**	**Slug Test:**	**MW-9**
		Test Well:	MW-9
Depth to Static WL:	18.62 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:	DM	Screen length:	10 [ft]
Date:	6/11/2009	Aquifer Thickness:	100 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
1	0	19.78	1.16
2	0.25	19.75	1.13
3	0.5	19.37	0.75
4	0.75	19.33	0.71
5	1	19.45	0.83
6	1.25	19.50	0.88
7	1.5	19.60	0.98
8	1.75	19.49	0.87
9	2	19.32	0.70
10	2.25	19.20	0.57
11	2.609	19.07	0.45
12	2.97	19.00	0.38
13	3.389	18.94	0.32
14	3.809	18.92	0.30
15	4.229	18.89	0.27
16	4.71	18.87	0.25
17	5.249	18.86	0.24
18	5.729	18.84	0.22
19	6.329	18.82	0.20
20	6.929	18.79	0.17
21	7.529	18.78	0.16
22	8.189	18.77	0.15
23	8.909	18.75	0.13
24	9.689	18.75	0.13
25	10.469	18.74	0.12
26	11.309	18.73	0.11
27	12.209	18.73	0.11
28	13.169	18.72	0.10
29	14.129	18.71	0.09
30	15.209	18.71	0.09
31	16.349	18.70	0.08

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

Test Well:	**MW-9**	**Slug Test:**	**MW-9**
		Test Well:	MW-9
Depth to Static WL:	18.62 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:	DM	Screen length:	10 [ft]
Date:	6/11/2009	Aquifer Thickness:	100 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
32	17.549	18.70	0.08
33	18.809	18.69	0.07
34	20.129	18.69	0.07
35	21.57	18.69	0.07
36	23.07	18.68	0.06
37	24.629	18.68	0.06
38	26.309	18.68	0.06
39	28.109	18.68	0.06
40	29.969	18.68	0.06
41	32.009	18.67	0.05
42	34.109	18.67	0.05
43	36.329	18.67	0.05
44	38.729	18.67	0.05
45	41.249	18.67	0.05
46	43.889	18.67	0.04
47	46.709	18.66	0.04
48	49.709	18.66	0.04
49	52.889	18.66	0.04
50	56.249	18.66	0.04
51	59.849	18.65	0.03
52	63.449	18.66	0.04
53	67.649	18.65	0.03
54	71.849	18.65	0.03
55	76.049	18.65	0.03
56	80.849	18.65	0.03
57	86.249	18.65	0.03
58	91.049	18.65	0.03
59	97.049	18.65	0.02
60	103.049	18.65	0.02
61	109.049	18.64	0.02
62	115.649	18.64	0.02

Richardson Smith Gardner
14 N. Boylan Avenue
Raleigh, North Carolina 27603
Ph. 919-828-0577

Slug Test Data Report

Project: Davidson Co. Phase 2 Area 1

Number:

Client: Davidson County Landfill

Test Well:	**MW-9**	**Slug Test:**	**MW-9**
		Test Well:	MW-9
Depth to Static WL:	18.62 [ft]	Casing radius:	0.083 [ft]
Location:	Phase 2 Area 1	Boring radius:	0.1667 [ft]
Recorded by:	DM	Screen length:	10 [ft]
Date:	6/11/2009	Aquifer Thickness:	100 [ft]

	Time [s]	Depth to WL [ft]	Drawdown [ft]
63	130.649	18.64	0.02
64	165.449	18.64	0.02
65	175.049	18.64	0.02
66	185.849	18.64	0.02
67	197.249	18.64	0.02
68	209.249	18.64	0.02
69	235.049	18.64	0.02
70	249.449	18.64	0.02
71	264.449	18.63	0.01
72	280.049	18.63	0.01
73	333.449	18.63	0.01
74	353.849	18.63	0.01
75	374.849	18.63	0.01
76	446.249	18.63	0.01
77	472.649	18.63	0.01
78	530.849	18.63	0.01
79	562.649	18.63	0.01